

celularity

# The First Fully Integrated Functional Medicine Company

Cellular and Regenerative Therapeutics

September 2024

### LEGAL DISCLAIMERS

All statements in this presentation other than statements of historical facts regarding Celularity Inc. ("Celularity") are "forward-looking statements" reflecting management's current beliefs and expectations, including those relating to future events. In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "can," "contemplate," "continue," "could," "estimate," "expect," "forecast," "intends," "may," "might," "outlook," "plan," "possible," "potential," "predict," "project," "seek," "should," "strive," "target," "will," "would" and the negative of terms like these or other comparable terminology, and other words or terms of similar meaning. Many factors could cause actual results to differ materially from those described in these forward-looking statements, including but not limited to: the inherent risks in biotechnological development, including with respect to the development of novel therapies, and the clinical trial and regulatory approval process; and risks associated with Celularity's current liquidity, as well as developments relating to Celularity's competitors and industry, along with those risk factors set forth under the caption "Risk Factors" in Celularity's current annual report on Form 10-K filed with the Securities and Exchange Commission "SEC" and other filings with the SEC. Accordingly, forward-looking statements should not be relied upon as representing Celularity's views as of any subsequent date, and Celularity undertakes no obligation to update forward-looking statements to reflect events or circumstances after the date hereof, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. This presentation shall not constitute an offer to sell or the solicitation or qualification under the securities laws of any such jurisdiction.

Celularity makes no representation or warranty as to the accuracy or completeness of the data contained herein and shall have, and accept, no liability of any kind, whether in contract, tort (including negligence) or otherwise, to any third party arising from or related to use of this presentation or the data contained herein. Certain information contained in this presentation relates to or is based on studies, publications, surveys and Celularity's own internal estimates and research. Such estimates and research have not been verified by any independent source. In addition, market data which may be included in this presentation may involve a number of assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions.

The revenue presented in this presentation is preliminary and unaudited, reflecting a management estimate as of the date of this presentation. These revenues are subject to the completion of Celularity's financial closing procedures. Celularity's independent registered public accounting firm has not conducted an audit or review of, and does not express an opinion or any other form of assurance on, these revenue figures.

Celularity owns or has the rights to various trademarks, service marks and trade names that it uses in connection with the operation of its business. This presentation may also contain trademarks, service marks, trade names and copyrights of third parties, which are the property of their respective owners. The use or display of third parties' trademarks, service marks, trade names or products in this presentation is not intended to, and does not imply, a relationship with Celularity, or an endorsement or sponsorship by or of Celularity.



The First

# FULLY INTEGRATED FUNCTIONAL MEDICINE COMPANY



Marketing 6 commercial stage products in regenerative medicine.



On track for \$50-56MM revenue in 2024.



On track for three 510(k) filings in 2025-2026.



Phase II cell therapy data in autoimmune and degenerative diseases.



State-of-the-art research, development and GMP manufacturing expertise using placental API.

# **BUILDING ON TWO+ DECADES OF INNOVATION**



CUMULATIVE
REVENUE
GENERATED
SINCE 2018
SPIN-OUT

SECURE RAW
MATERIAL
SUPPLY CHAIN
DONORS
BIOBANKED

PATIENTS
TREATED WITH
OUR
ADVANCED
BIOMATERIAL
PRODUCTS

\$100 MILLION STATE OF THE ART GMP AND R&D FACILITY

WORLDWIDE PATENTS IN PORTFOLIO

~ \$120MM > 45,000

> 250,000

150,000<sub>sqft</sub>

358

# HIGHLY INTEGRATED INDUSTRIALIZED BUSINESS MODEL



# ADVANCED BIOMATERIALS

# BIOBANKING SERVICES

# CELL THERAPY

- A suite of commercial products
- Out-license partnership with Genting Innovations (Asia & PRC) and Biocellgraft (US)



- Controlled raw material supply chain
- Lifebank® newborn stem cell banking program
- Adult Cell Banking Program launched 2Q 2024

Exclusive Obstetrics Network

- CDMO for autologous / allogeneic cell therapy products
- Development partnerships: Regeneron, Aesthetics

- 510(k) Product Development Pipeline
- Out-license opportunities
- Commercial CDMO Services



 Adult Stem Cell Banking launch in Q2 with partnership



- Phase 2 data in autoimmune/degenerative disease
- Development platform out-license opportunities

# **CURRENT COMMERCIAL BIOMATERIAL PRODUCTS**



#### **BIOVANCE®**



# Completely decellularized placenta-derived allograft; provides dermal scaffold to serve as a foundation for advanced wound healing.

# $Interf\gamma I^{^{\circ}}$



Connective tissue matrix (CTM) from chorionic plate of human placenta; provides structural support while maintaining its elasticity.

# **\$3L**



Completely
decellularized
placenta-derived
allograft; unique
3-layer design with
improved structural
integrity and
handleability.

# Biovance 3L OCULAR



Designed for ocular surface diseases and disorders.

# CentaFlex.



Completely decellularized human placental umbilical cord; provides stronger and more durable support for soft-tissue repair.

# RIEBOUND



Completely
decellularized
Full Thickness
placentaderived allograft
matrix
consisting of a
3-layer design.

Launch 9/24



**NEAR-TERM** 

# VALUE DRIVERS AND COMMERCIAL OPPORTUNITIES



Growing brand visibility opening new market opportunities.



>70% operating margins on current commercial products.



Revenue growth creates pathway to profitability in 12-15 months.



Compelling Phase II human clinical cell therapy data in autoimmune/degenerative diseases.



Existing research/development relationships with pharma and aesthetics leaders.

## **NEXT GENERATION ADVANCED BIOMATERIAL PIPELINE HIGHLIGHTS**



Unparalelled manufacturing capabilities and development expertise

# **Pipeline Products**



**TENDON MANAGEMENT** 



ORTHOPEDICS/BONE



**WOUND MANAGEMENT/AESTHETICS** 

- Sutureable
- Biophysical Strength
- Bioresorbable
- Biocompatible

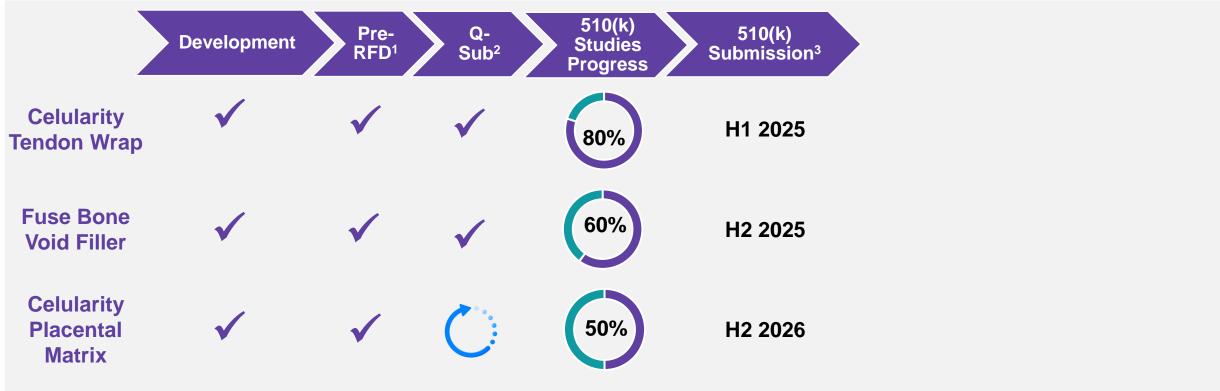
- Composite Material
- Moldable
- Osteoconductive
- Bioresorbable
- Biocompatible

- Flowable
- Conforming to size / change of wounds
- Leveraging placental ECM development from FUSE

# INNOVATING FOR CONSISTENT REVENUE GROWTH

# On track for three 510(k) filings in 2025-2026





<sup>&</sup>lt;sup>1</sup>Pre-Request for Designation.

<sup>&</sup>lt;sup>2</sup>Q-Submission Program – voluntary program that allows medical device manufacturers to discuss regulatory requirements and processes with the FDA.

<sup>&</sup>lt;sup>3</sup>A premarket submission made to FDA to demonstrate that the device to be marketed is as safe and effective(substantially equivalent) to a legally marketed device. (Section 513(I)(1)(A) FD&C Act).

<sup>\*</sup>CAGRs are the estimated cumulative annual growth rates for 2023 -2031.

Global Market Research; Global Market Insights, Nova 1 Advisor; Management estimates;

## **DEEP MANUFACTURING EXPERTISE**

Fully Integrated, Purpose-Built Commercial Scale Manufacturing Site Including Translational Research & Biorepository

# **Purpose Built Facility for Commercial-scale Cellular Therapeutic Manufacturing**

- \$100M investment in cGMP/cGTP manufacturing
- Enables greater control, efficiency and optimization than is achievable by outsourcing to contract manufacturing organizations (CMOs) alone

# Staffed by Highly Specialized Scientists, Engineers & Technicians

- Optimized, product-specific CMC, QA/QC and manufacturing processes accelerate product development, production and commercialization
- Over 2 decades of experience with source material procurement

#### **Commercial Scale, GMP-ready**

- 9 Grade C/ISO 7 suites
- 6 Grade D/ISO 8 labs
- Dedicated translational research labs



Celularity benefits from Celgene's 15 year+ investment in developing the technologies and capabilities required to manufacture cellular products at scale with consistent and reliable quality



**3-5 YEAR** 

# DISRUPTIVE VALUE OPPORTUNITY

IN LONGEVITY AND HUMAN PERFORMANCE



The only company with 3 clinical stage assets applicable to longevity and preservation of human performance.



Robust regenerative medicine product pipeline.



Multiple partnership-ready clinical stage assets in cell therapy.

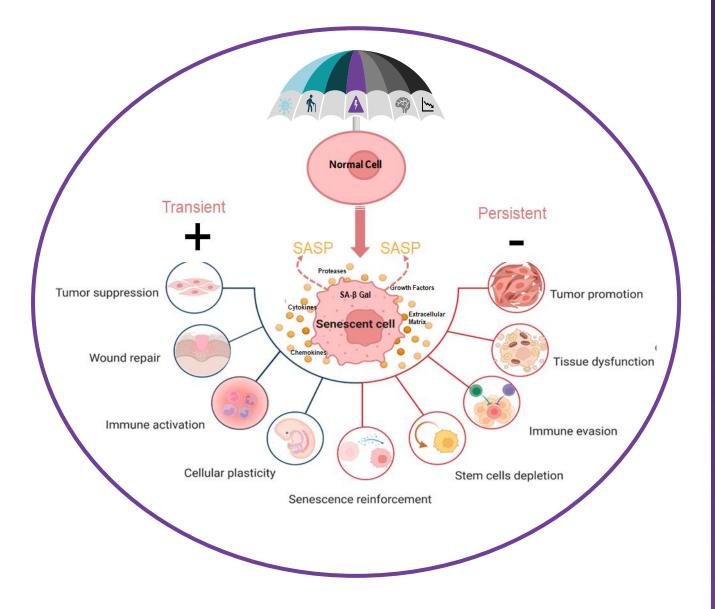


Human clinical stage placental Natural Killer (NK) cell is a first-inclass "Senoablatant" for agerelated diseases.



Senoablation and muscle loss in age-related frailty/sarcopenia are significant upside opportunities.

# CELLULAR SENESCENCE DRIVES AGING-RELATED PATHOLOGIES





Senescence involves cell-cycle arrest and the release of inflammatory cytokines.



Senescent cells promote a state known as 'inflammaging'.



Persistence of senescent cells are maladaptive, driving inflammatory diseases and cancer.

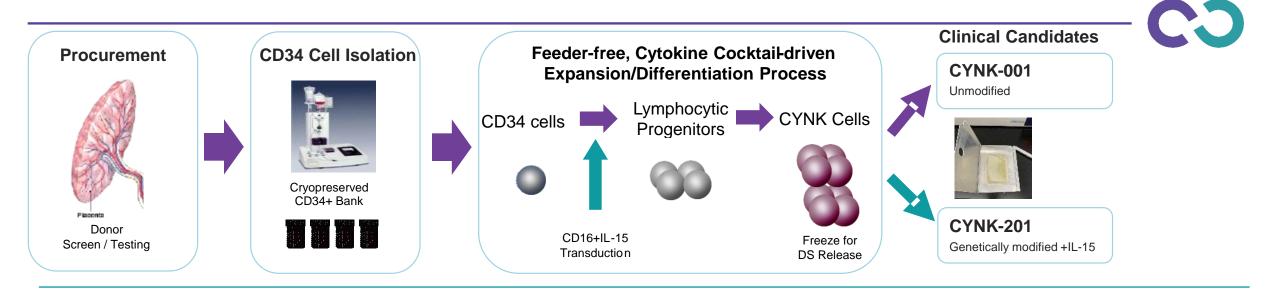


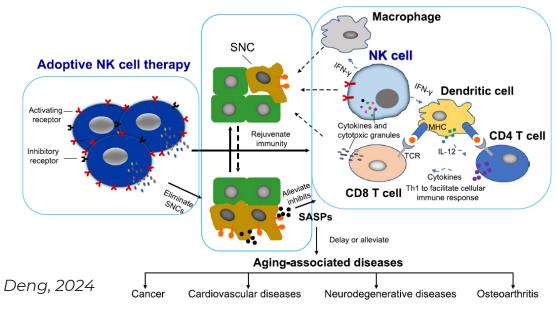
Early clinical data suggest senolytic therapeutic approaches could be beneficial in human disease.



NK mediated '*senoablation*' is a major therapeutic opportunity.

# RATIONALE FOR PLACENTAL NK CELLS AS A SENOABLATANT





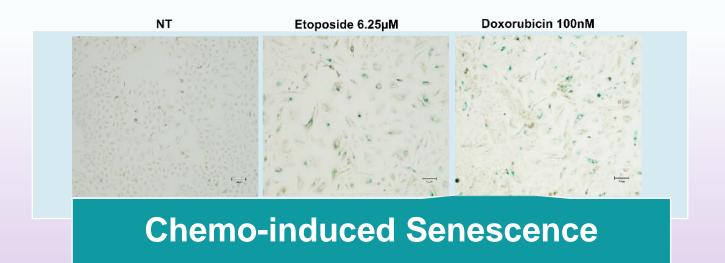
- Adoptive autologous PB NK cell therapy showed promise in reversing immunosenescence, eliminating senescent cells, decreasing SASPs.
- Celularity has established allogenic, off-the-shelf, cryopreserved placental CD34 derived CYNK cell platform.
- Demonstrated clinical safety of CYNK-001 in multiple clinical trials (>40 subjects).

# **CYNK-001: A CLINICAL STAGE CANDIDATE**

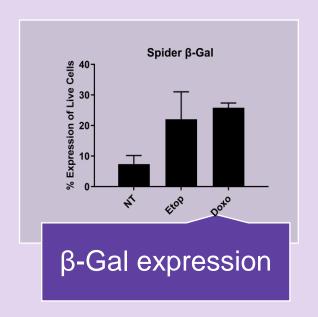
- Celularity has dosed 46 subjects with CYNK-001 (IV) within various indications.
- Overall safety of CYNK-001 was well-tolerated with transient Grade 1 or 2 cytokine release syndrome (CRS) attributed to the product.

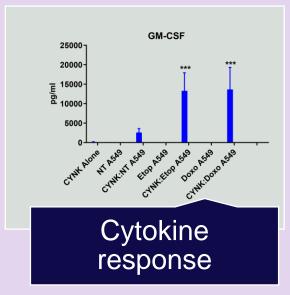
Total No. of SUBJECTS									
		CYNK-001							
INDICATION		150 million on Day 1 and 600 million on Days 4 and 7	600 million x 3	1.2 Billion single dose	1.2 Billion x 3	1.8 Billion x 3	1.8 Billion x 4	TOTAL CYNK-001	
Acute Myeloid Leukemia in either	Without IL-2		1		3	17	3	24	
MRD or Relapsed/Refractory groups (with or without IL-2)	With IL-2					3		3	
Multiple Myeloma				3	3	3		9	
Glioblastoma					3			3	
COVID-19		7						7	
TOTAL		7	1	3	9	18	3	46	

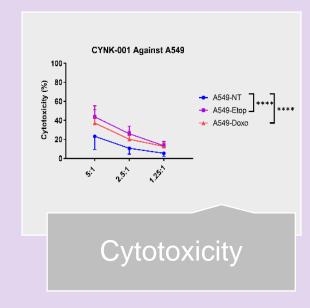
# PLACENTAL NK CELLS EXHIBIT ACTIVITY AGAINST SENESCENT CELLS IN VITRO

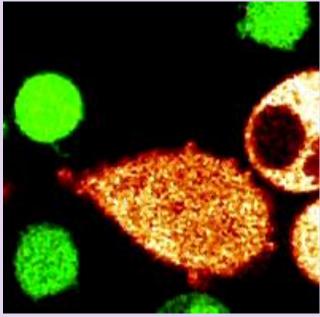


CYNK-001 and CYNK-201 cells demonstrated significantly enhanced elimination of senescent cells in pre-clinical studies











# **AGE-RELATED SARCOPENIA**

CJ

- o Age-related loss of skeletal muscle mass and function. GLP-1 mediated muscle loss may be a target.
- The prevalence in 60–70 age is reported as 5–13%, while the prevalence ranges from 11 to 50% in people >80 years. Global population aged ≥60 years is expected to rise to 1.2 billion by 2025 and 2 billion by 2050.
  - The economic impact in the USA was estimated at \$40.4 billion annually.

#### **Pathogenesis** Characteristics of age-related muscle atrophy Sarcopenia muscle composition: neuromuscular drive: Redistribution of muscle fibre ↓ number of motor units Adipocyte infiltration (sarcopenic satellite cells: obesity) - ↓ number intracellular changes: ↓ regenerative capacity Shift towards proteolysis systemic effects: Protein modifications ↑susceptibility to oxidative - inflammaging/immunosenescence Impaired mitochondrial function ↓anabolic hormone levels **Accompanying** influences Inactivity Malnutrition co-morbidities **↓** Muscle strength - ↓ Muscle quantity - ↓ Physical performance

### **MLASC MOA**

- 1. Immunomodulatory
- 2. Anti-inflammatory
- 3. Angiogenesis, Myogenesis, and Neurotrophic
- 4. Reduction of oxidative stress

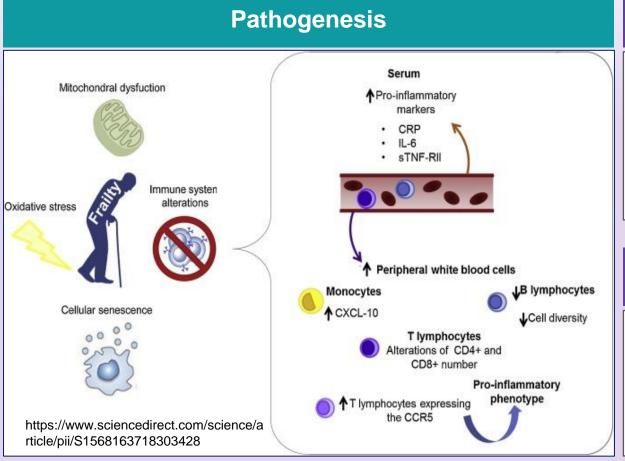
#### **NK Cells MOA**

- Targets expressed stress ligands on senescent cells
- 2. NKG2D recognition
- 3. Perforin/granzyme IFN-g macrophage activation

Clinical Outcome Measures				
1	Short physical performance Battery (SPPB)			
2	DEXA			
3	6-Minute walk test or 400-meter walk test, Timed up and go (TUG) test			
4	Sarcopenia Quality of life (SarQol) questionnaire			

# **AGE-RELATED FRAILTY**

- Increased serum levels of inflammatory molecules, including CRP (C-reactive protein), IL-6 (interleukin 6) and sTNF-RII (75 kDa soluble TNFα receptor II), have been observed in frail and pre-frail elderly people.
- Fried Frailty Index: weight loss, exhaustion, low physical activity, slowness, weakness etc. for diagnosis.



# **MLASC MOA**

- 1. Immunomodulatory
- 2. Anti-inflammatory
- Angiogenesis, Myogenesis, and Neurotrophic
- 4. Reduction of oxidative stress

## **NK Cells MOA**

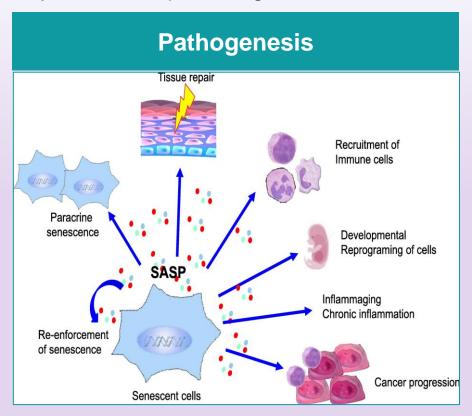
- Targets expressed stress ligands on senescent cells
- 2. NKG2D recognition
- Perforin/granzyme IFN-g macrophage activation

# **Clinical Outcome Measures**

1	Change in frailty index
2	6-minute walk test
3	Short physical performance battery (SPPB)
4	Hand Grip Strength
5	Markers: CRP, IL-6, TNF-alpha
6	PROMIS questionnaire
7	DNA methylation epigenetic clock, years

# AGE-RELATED IMMUNOSENESCENCE

- Age-related impairment of immune function (immunosenescence) increases morbidity and mortality in infectious diseases, i.e. COVID-19.
- Senescent cells can secrete pro-inflammatory cytokines, chemokines, and extracellular matrix protease, termed the senescence-associated secretory phenotype (SASP).
- NK cells kill senescent cells through a mechanism involving perforin- and granzyme-containing granule exocytosis and produce IFN-γ following senescent cell interaction.



# **NK Cell MOA**

- Targets expressed stress ligands on senescent cells
- 2. NKG2D recognition
- 3. Perforin/granzyme IFN-g macrophage activation

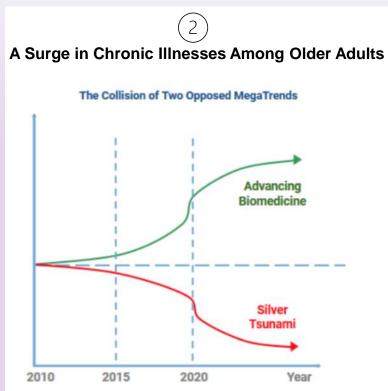
Clinical Outcome Measures		
1	Beta-galactosidase	
2	p16, p53, p21	
	SASP inflammatory markers: IL-6, IL-8,	
	CRP, CCL5, CXCL9, MCP-1	
1 /1	qRT-PCR in CD3+ cells for CDKN2A and	
	plasminogen activator 1	
5	change in frailty index	
1 h	Change in cognitive function using Digit	
	symbol substitution test	
7	*DNA methylation epigenetic clock, years	

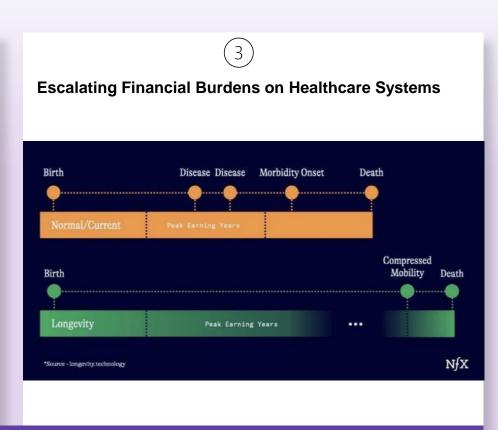


# UNIQUELY POSITIONED TO BE A DOMINATING COMPANY IN LONGEVITY AND HUMAN PERFORMANCE

A Healthcare Challenge: The Impending Silver Tsunami
A perfect storm is brewing in the healthcare sector, driven by several interconnected factors:

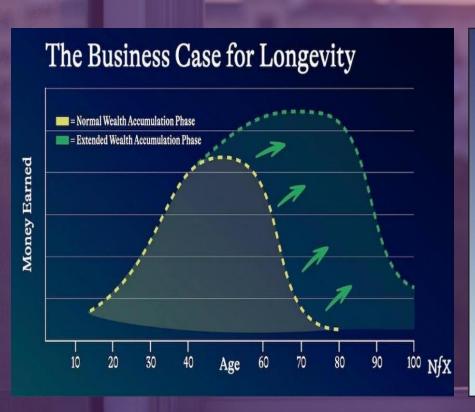






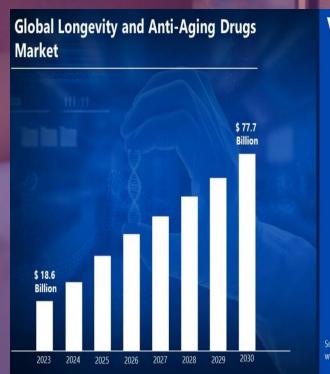
Providing solutions to unburden the healthcare system and increase the economic productivity of the fastest-growing segment of the population.

# THE ADDRESSABLE MARKET FOR SCALABLE THERAPEUTIC SOLUTIONS IN LONGEVITY IS UNPRECEDENTED



The ROI for longevity-based interventions which increase the relative proportion of wealth accumulation years in the population over 65 justifies the expense to government and/or private payers.

Target market is roughly 40% of the global population.





14.7%

CAGR from 2024 to 2030

Source: www.verifiedmarketresearc





Marketing 6 commercial stage products in regenerative medicine.



On track for \$50-56MM revenue in 2024.



On track for three 510(k) filings in 2025-2026.



Phase II cell therapy data in autoimmune and degenerative diseases. Opportunities in agerelated diseases/longevity.



State-of-the-art research and GMP manufacturing infrastructure.