

CHA Biotech

Cell, Cure the Incurable

Driving Innovation with Advanced Cell
and Gene Therapy

CHA Bio Eco System : Core Strength

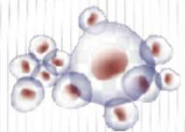
Vertical Integration of Academy, Research, Medical Network and Bio Industry that embody CHA's values of Innovation, Challenge, and Contribution to the society

Accelerates the overall drug development process from basic research, clinical development to commercialization



Complete Lifecycle

Our integrated vision for healthcare explores the **full human lifecycle**, from cellular reproduction to fighting cellular decay.



Cell

- Global leading research organization for immune and stem cell therapies
- One of three global institutions to own Somatic Cell Nuclear Transfer (SCNT) technology



Embryo

- World Top 3 Reproductive Medicine Provider
- Global most advanced IVF group with 50K cycles annually



Child

- Korea's most renowned brand in Obstetrics & early Pediatrics with more than 400K deliveries to date



Women

- Korea's leading brand in Women's Health, with dedicated specialty hospitals and post maternity hotels



Wellness

- Chaum, World's first personalized wellness center
- Bio preservation and epigenetic therapies



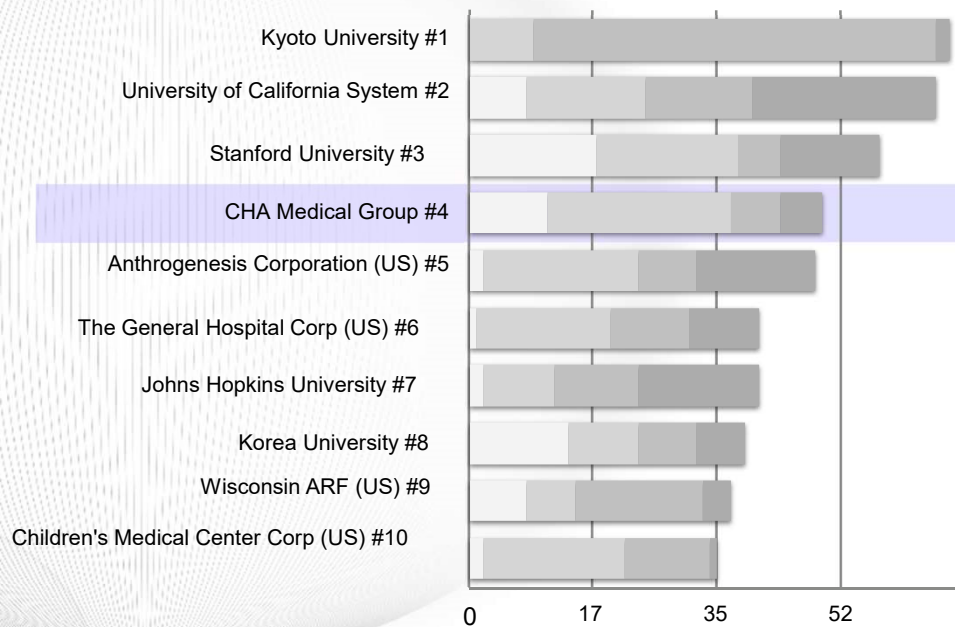
Anti-Aging

- Ongoing research into longevity and stem cell treatments for mitigating cell decay

Global Leadership in Stem Cell Science

We have built the world's largest cell library based on enhanced tissue platform technology

Global Patent Applications in Stem Cell Technology

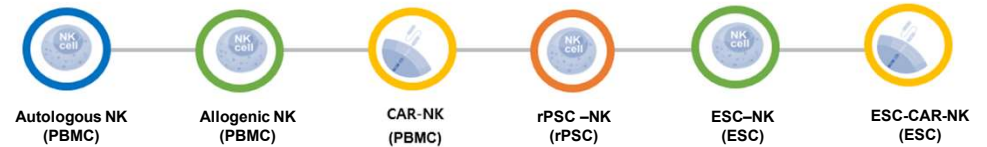


One of only three institutions in the world
(CHA, Columbia University, Oregon Health and Science University)
with reprogrammed Pluripotent Stem Cell (rPSC) technology

World's Largest "Cell Library"

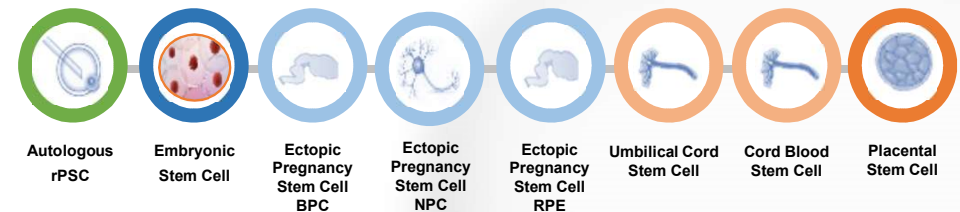
6 Immune cell platform

Clinical pipeline focused on Solid Cancers, Ovarian Cancer, Hepatocellular Carcinoma and Recurrent GBM



8 stem cell platform

Clinical pipeline focused on Disc Degenerative Disease (Phase II), Stroke, Parkinson's Disease, Age-related Macular Degeneration (out-licensed to Astellas) and other indications



70 hESC lines and 17 rPSC lines established
by CHA researchers since 2004

CHA Cell and Gene Therapy Pipeline


Clinical stage pipelines : proven efficacy through CHA medicalcenters

Fast & innovative bedside to bench drug development in cell therapy Based on CHA proprietary cell technology

Immune cell Therapy

Cell Source	Cell Type	Pipeline	Indication	Discovery	Preclinical	Phase 1	Phase 2	Phase 3	
PBMC (Autologous)	NK Cell	CBT101	Recurrent GBM	[Progress bar]					
			Solid Cancers	[Progress bar]					
PBMC (Allogeneic)		CBT111	Solid Cancers	[Progress bar]					
		CAR-NK	Solid Cancers	[Progress bar]					

Stem cell Therapy

Cell Source	Cell Type	Pipeline	Indication	Discovery	Preclinical	Phase 1	Phase 2	Phase 3	
Umbilical Cord (Allogeneic)	Mesenchymal Stem Cell	CordSTEM®-DD	Disc Degenerative Disease	[Progress bar]					
		CordSTEM®-POI	Premature Ovarian Insufficiency	[Progress bar]					
		CordSTEM®-ST	Stroke	[Progress bar]					
Ectopic Pregnancy (Allogeneic)	Neural Progenitor Cell	CBT-NPC	Parkinson's Disease	[Progress bar]					
Embryonic (Allogeneic)	Retinal Pigment Epithelium	hESC-RPE	Age-related Macular Degeneration ¹⁾	[Progress bar]					 1), 2) 80 million dollars out-licensing
			Stargardt Macular Dystrophy ²⁾	[Progress bar]					
Fat (Autologous)	Adipose Derived Mesenchymal Stem Cell	AD-MSK	Psoriasis	[Progress bar]					
			Rheumatoid Arthritis	[Progress bar]					

CHA Global 5 CGT CDMO sites

State-of-the-art cell and gene therapy manufacturing technology

Seamless technological connectivity achieved through close collaboration

At 5 global sites in the USA, Korea, and Japan



Matica Biotechnology

Texas, US



Matica BioJapan

Tokyo, Japan



CHA Hospital GMP

Bundang, KR



Matica Biolabs

Pangyo, KR



Cell Gene Biobank

Pankyo, KR



CHA Global 5 CGT CDMO sites

State-of-the-art cell and gene therapy manufacturing technology

CHA operates Global Leading CGT CDMO “Matica” with 5 global manufacturing sites

CHA Hospital GMP

World first hospital in-house CGT GMP
Established in 2006



Pankyo, Korea



Matica BioLabs

More than 1,000 batches & 9 types of cells production experience



Pankyo, Korea



Matica Biotechnology

US Cell & Gene Experts
Global leading CGT CDMO
AD/PD experts



Texas, US



Matica BioJapan

10,000 cases Cell therapy Mecca for cancer patients
Immunotherapy & regenerative stem cell therapy



Tokyo, Japan



Cell and Gene Biobank

Large scale commercial CGT manufacturing site & Open Innovation Hub



Pankyo, Korea



CHA Biotech GLOBAL VISION

Cell and Gene Therapies Pioneer
to provide cure to incurable diseases

Leading the Global CGT Market
Through optimized high-quality, high-efficiency manufacturing

Global Expansion of High Quality Healthcare Services
Beyond geographical limits

Achieving Well-Aging
Through cutting-edge cell technologies