



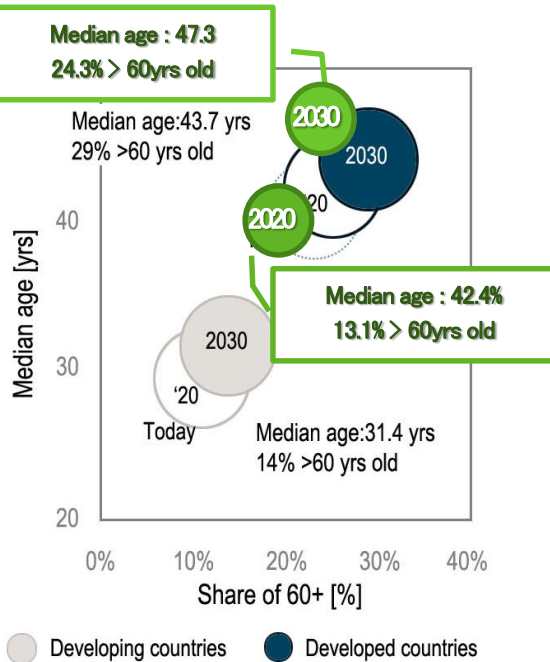
바이오 클러스터 성장 전략과 新생태계 조성

임재승_(주)차바이오텍 R&D본부장

재생의료 산업의 기회 및 이노베이션

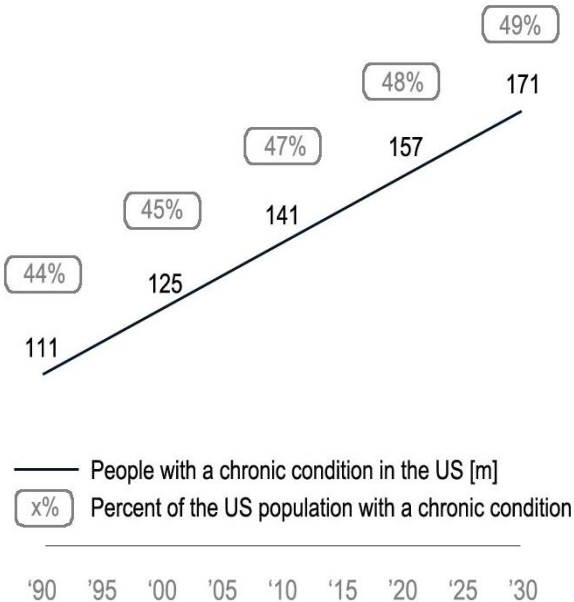
· Aging Population ·

Median age and 60+ share of population



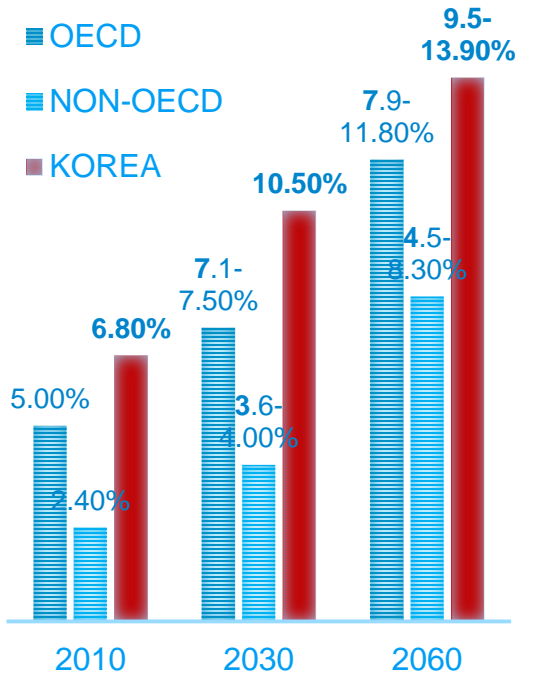
· increasing chronic illness ·

Chronic disease in the US



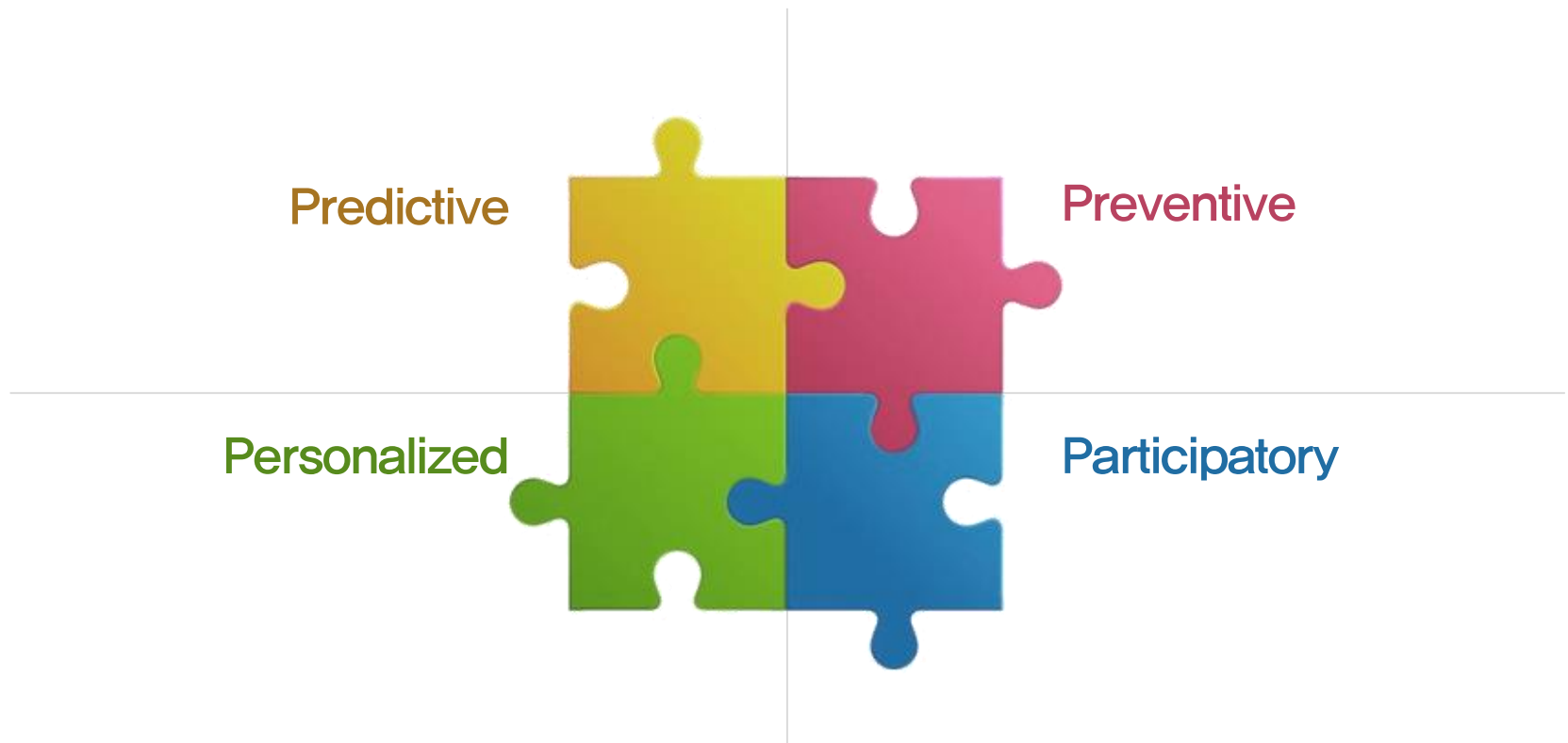
· rising healthcare cost ·

Public healthcare expenditures % of GDP
(Non-weighted average)

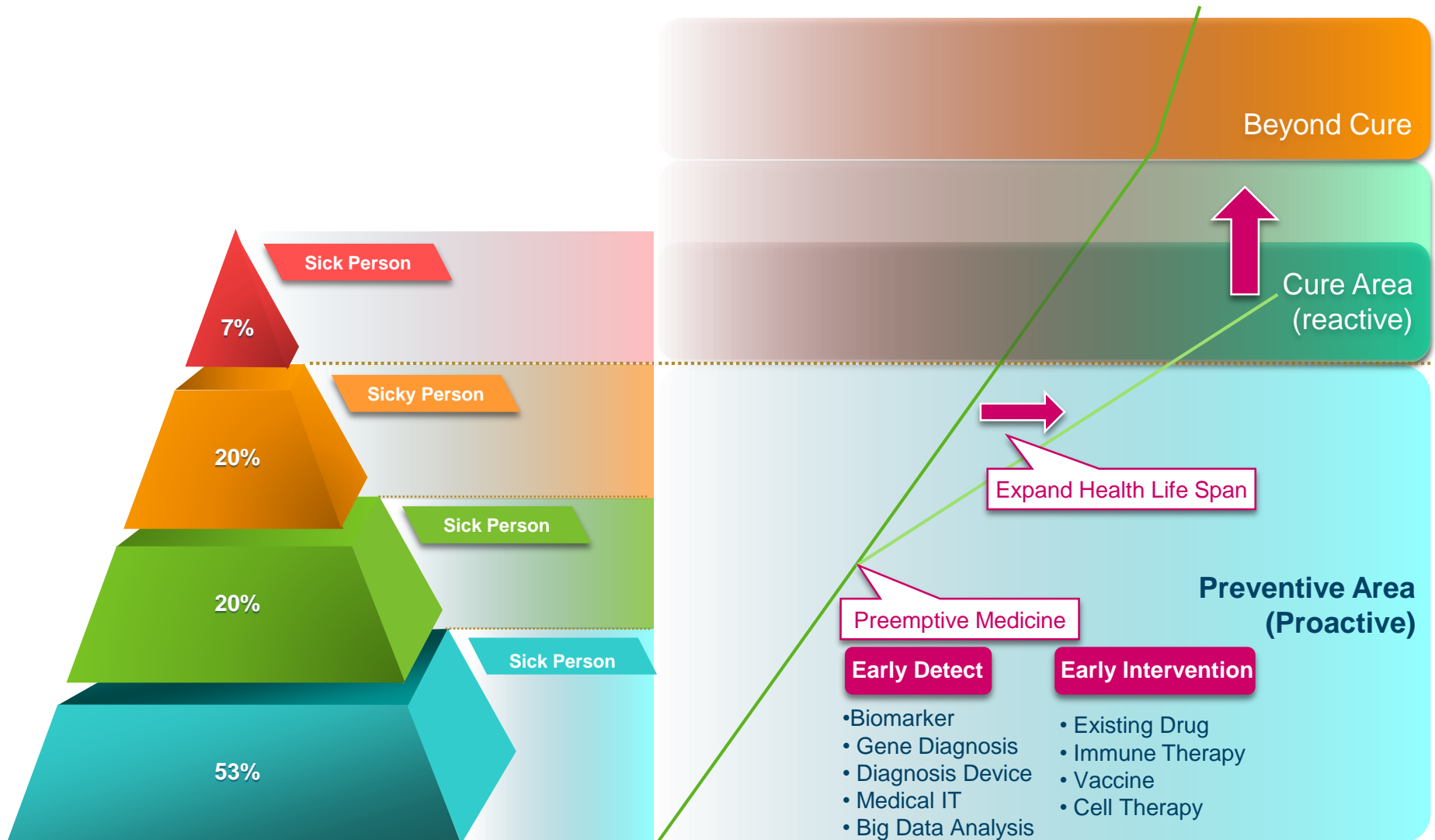


Proactive Medicine than active one

Focus shift from **treatment of disease** to **wellbeing**

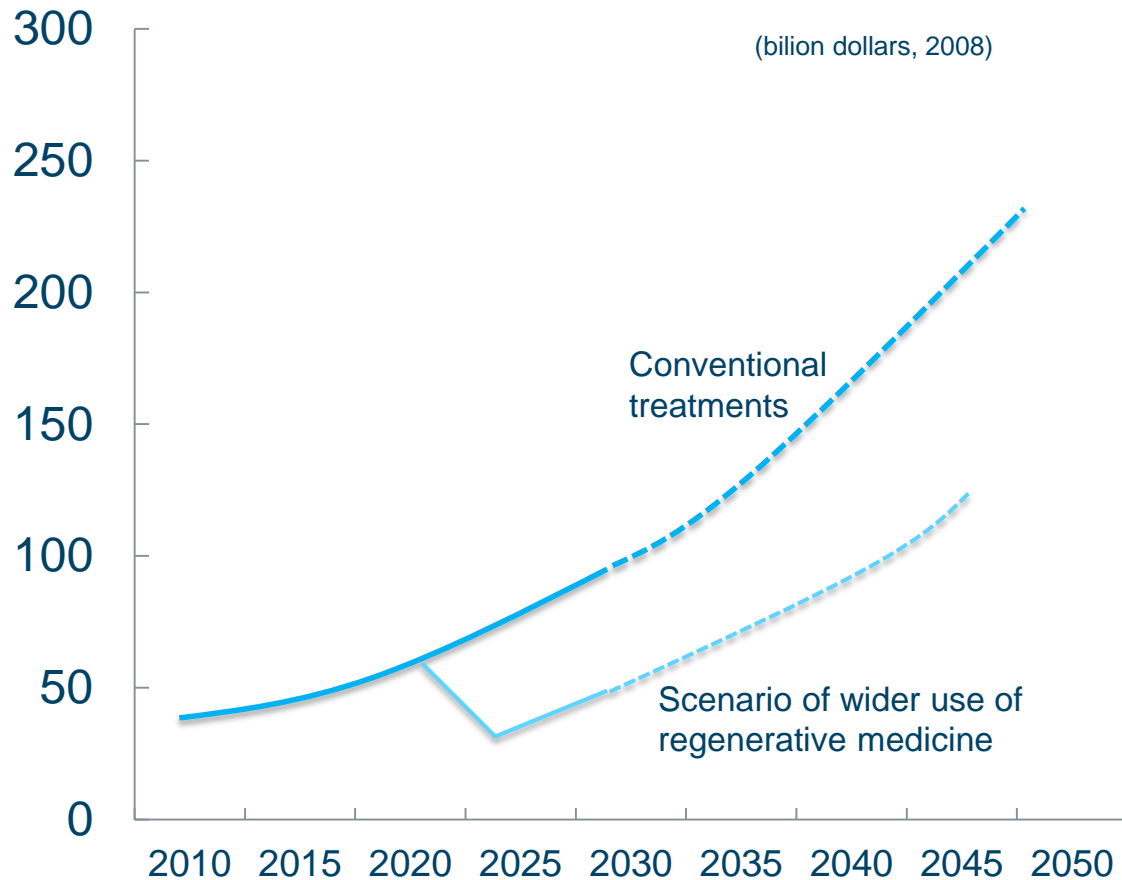


Approach of Medical treatment



Approach of Medical Treatment

Potential medical cost savings form RM therapy treatment for heart failure in the US





Massachusetts Digital Health Cluster

- Digital health initiative 발족
 - 매사추세츠 주지사 주최
 - 대중, 개인학술 및 헬스케어 관계자들이 모여 주 전체의 디지털 헬스 에코시스템 강화 및 연계
 - Collaborative digital health initiative 발표(16년 1월)
- 매사추세츠가 디지털 헬스 분야의 글로벌 우위 요인
 - 수도의 접근성, 멘토들 및 전문적 네트워크를 보유한 스타트업 에코 시스템
 - 세계적 수준의 대학 및 대학병원
 - 글로벌 선도 의료기기, 생명공학회사
 - 창의적인 헬스케어 정책

클러스터 4가지 요소

경제활동의 국지화

(Localization of economic activities)

- 관련 기업들이 특정지역에 집중

지역 산업 전문화

(Regional Specialization)

- 기업들이 특정 산업부분에 특화

집적 \neq 클러스터

사회적 하부구조의 존재

(Existence of Social infrastructure)

- 기업 활동을 지원하는 제도적 기반 존재
(대학, 연구기관, 지원기관, 정부기관 등)

네트워크 기반 경쟁과 협력의 공존

(Co-presence of completion & co-operation based on network)

- 네트워크와 집단 학습을 통한
혁신 창출 메커니즘 존재

바이오 클러스터의 Key Player



해외 바이오 클러스터



자생적 클러스터



- UCSD 중심 spin-off 된 startup
* SDBN (San Diego Biotechnology Network)
- 하버드/MIT/MGH 연구 병원
* MassBio (Massachusetts Biotech Council)
- NIH, FDA 주변 벤처 및 CRO



정부 주도 클러스터



- 日, 포트 아일랜드에 위치
* 기초에서 임상연구로 이어지는 중개연구
- 싱가포르, 해외 기업 유치
* 해외 우수기업 및 연구소 유치



대학 중심 클러스터



- Cambridge 대학 중심
* EMB에서 One nucleus로 통합

송도

서울, 경기, 오송, 대덕,
대구, 원주

해외 바이오 클러스터







성장 전략 1: 인적자원



2016.11.01 (화)

한국경제⁵²



뉴스

증권

부동산

오피니언

한경VIDEO

기획이슈

HEI

스네커

뉴스레빗

[글로벌 인재포럼 2016]

"현 상황은 세기말 혼란과 비슷...인재양성, 어느때보다 절실"

입력 2016-10-30 18:48:08 | 수정 2016-10-31 02:10:12 | 지면정보 2016-10-31 A8면



오피니언

전체뉴스

사설

칼럼

기고

기자칼럼

삽화

시리즈

인재 꾸준히 양성해 적재적소에 배치했다면 '비선' 논란 없었을 것
일관성 있는 교육정책 위해 인재포럼이 지속적 감시를
창업교육 여전히 아쉬움

크게 보기



“... 대학이 낡은 틀에 갇혀 있다는 따끔한 지적도 쏟아졌다.
경제대학원 교수는 “가장 안 바뀌는 곳이 대학” 이라고 했다. ...

성장 전략 2: 가벼운 창업



NATURE | NEWS

Young scientists ditch postdocs for biotech start-ups

Many biologists are founding their own firms as venture capitalists show increased interest in science.

Erika Check Hayden

01 November 2016

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“ ... We're starting to see a renaissance of investors embracing the idea that scientists can build businesses. ... ”

“ ... has changed as crucial technologies, such as genetic sequencing, have become cheaper and lab work has become automated. The cost of starting biotech companies is falling, lowering the risk for investor so fund new science-based companies. ... ”

Vindictive biotech investors turned Perlestein away before he started Perlara in San Francisco in 2014, because he wasn't the favored professor that most venture capitalists saw as founder. compound that Perlara has identified as a possible treatment for a rare childhood disease, and will invest an undisclosed sum in the smaller firm.

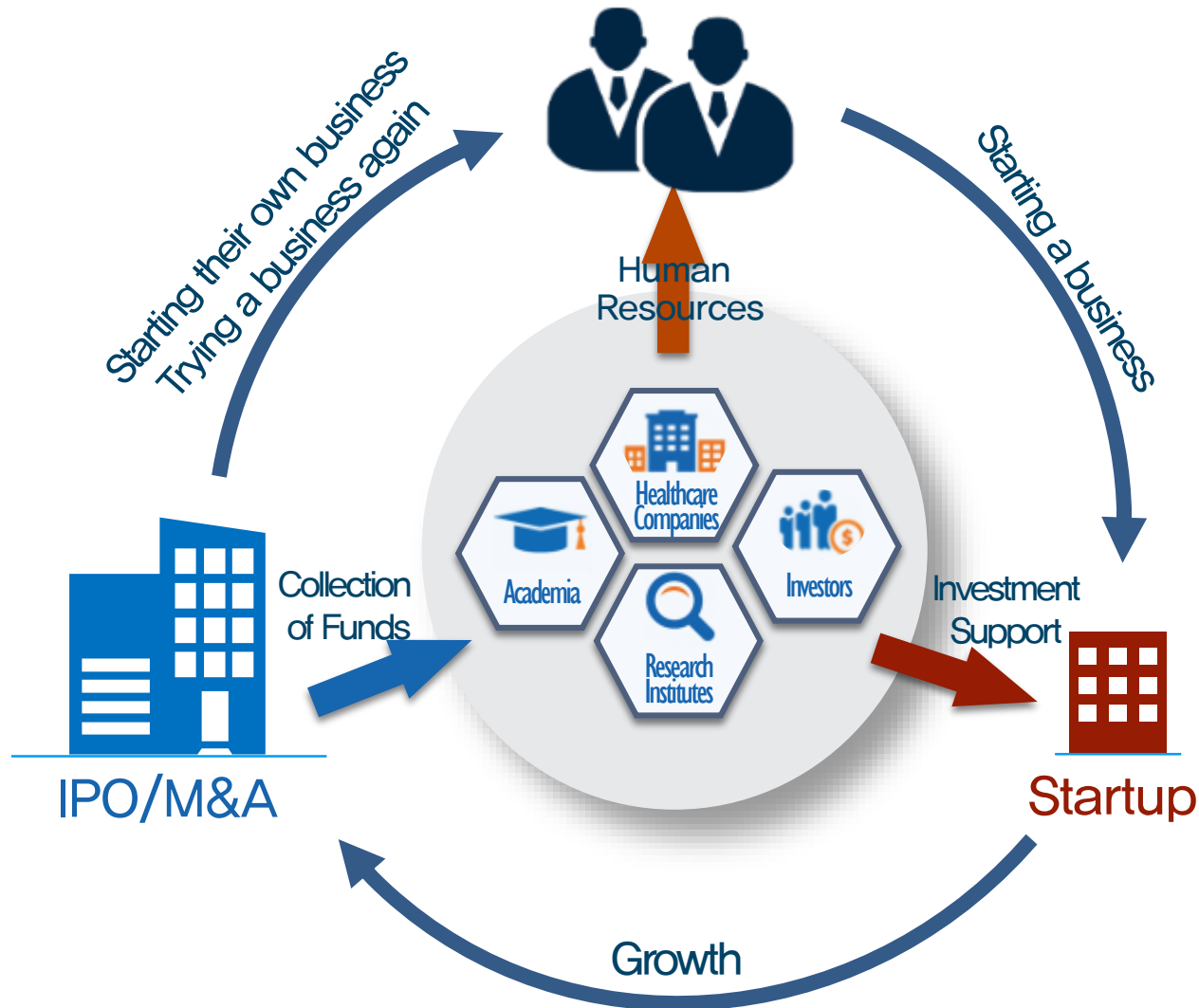
Numerous biotech investors turned Perlestein away before he started Perlara in San Francisco in 2014, because he wasn't the favored professor that most venture capitalists saw as founder.

Related stories

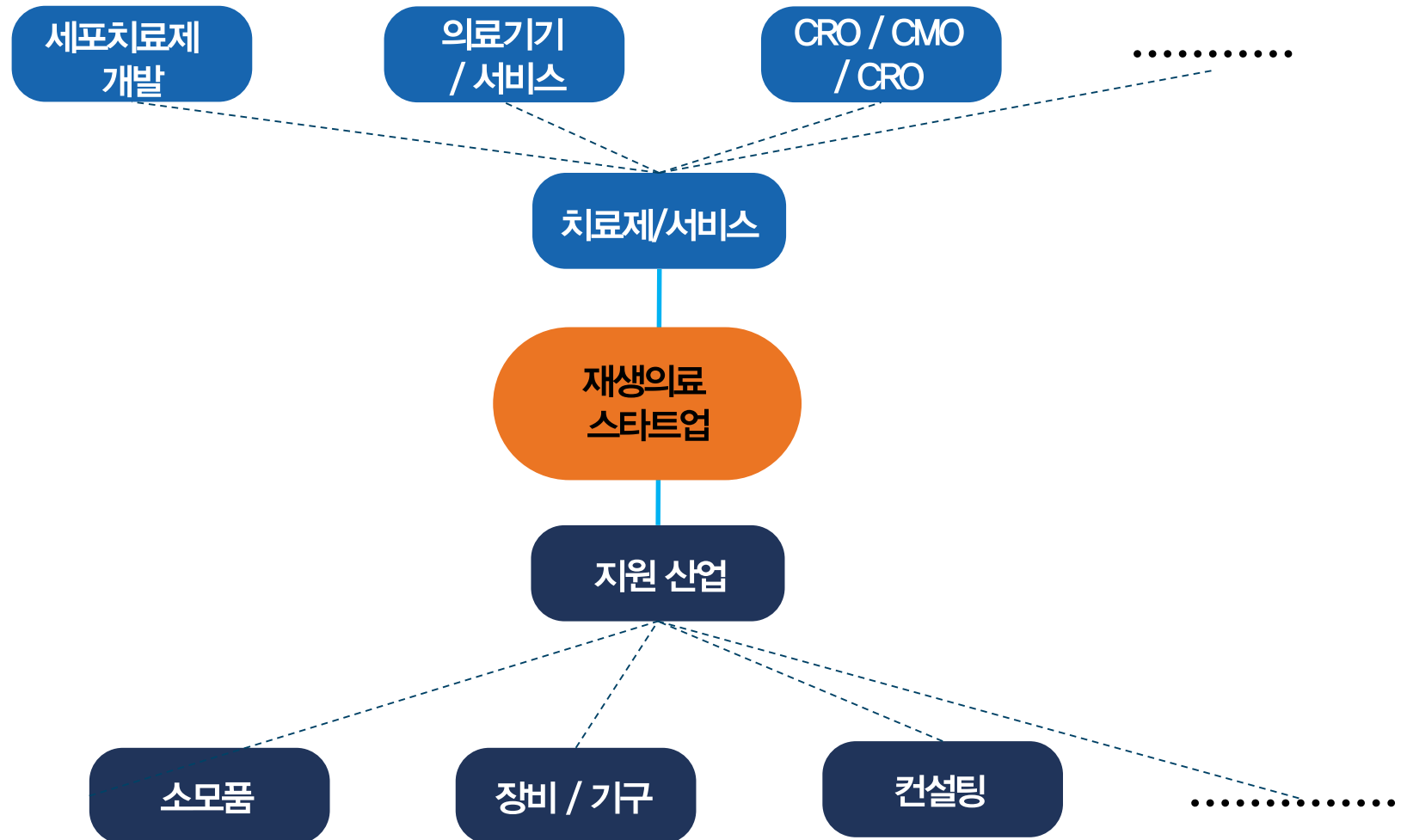
- Synthetic biology lures



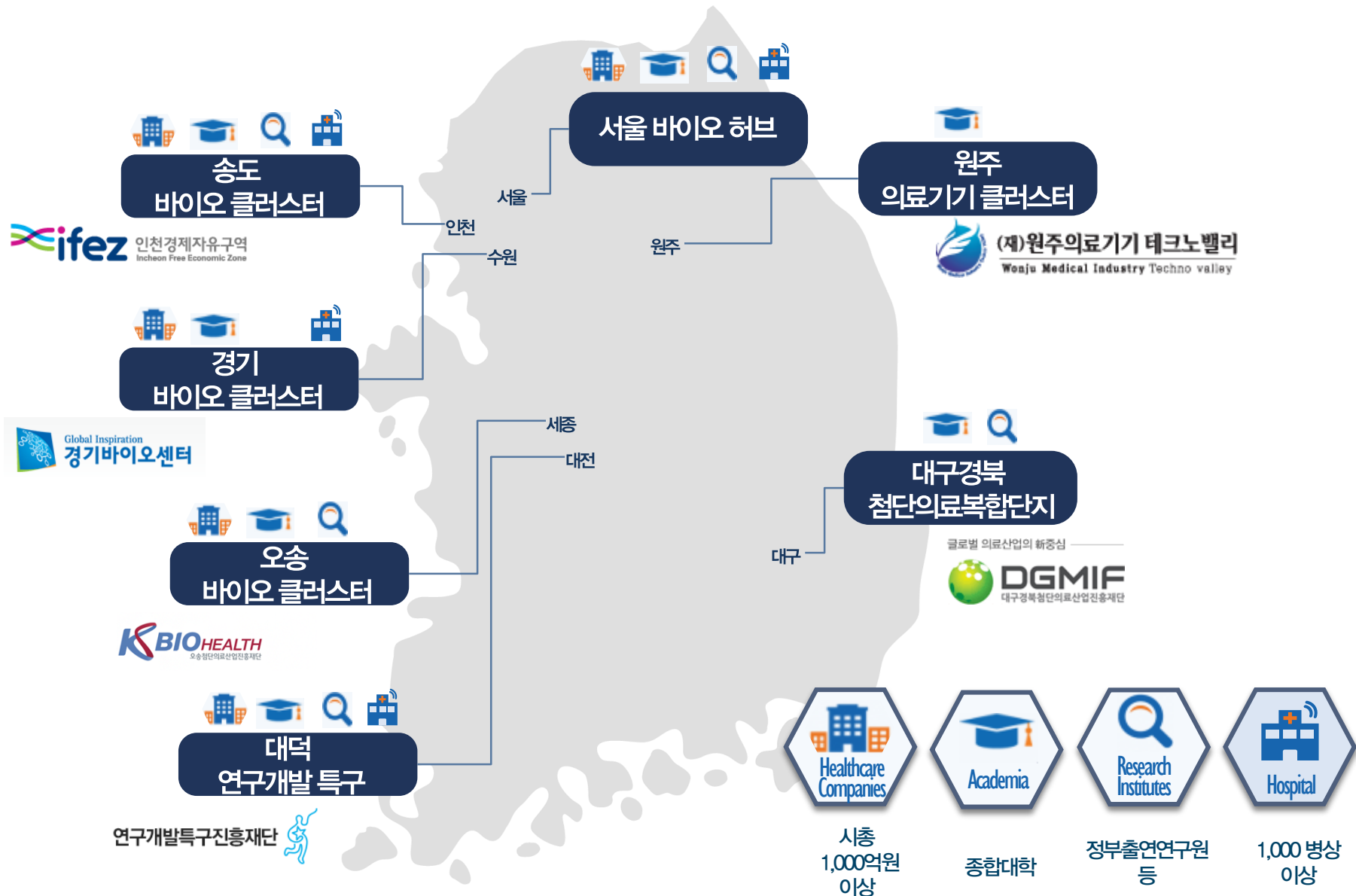
성장 전략 3: 선순환 구조



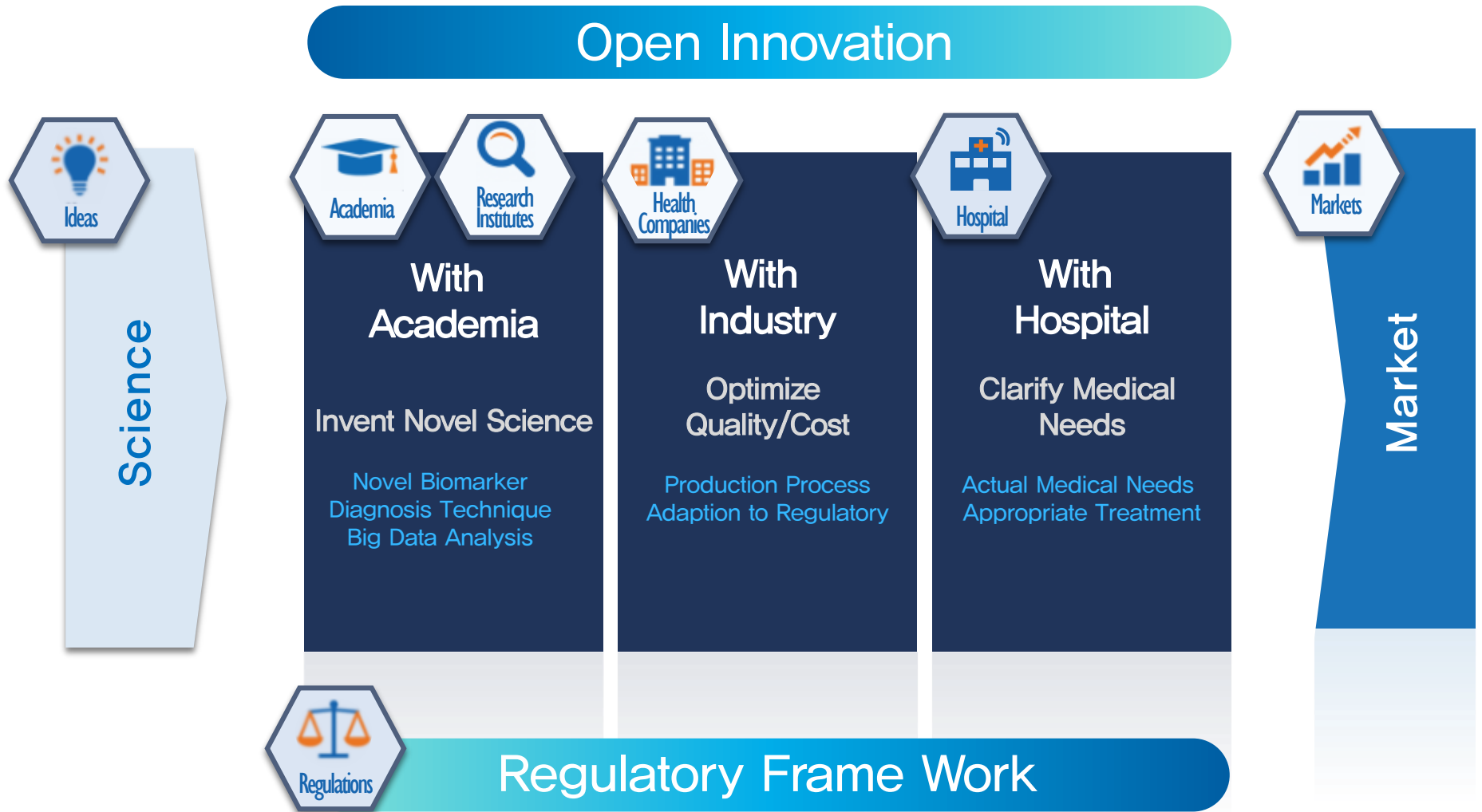
성장전략 4: 지원산업에 관심



국내 바이오 클러스터

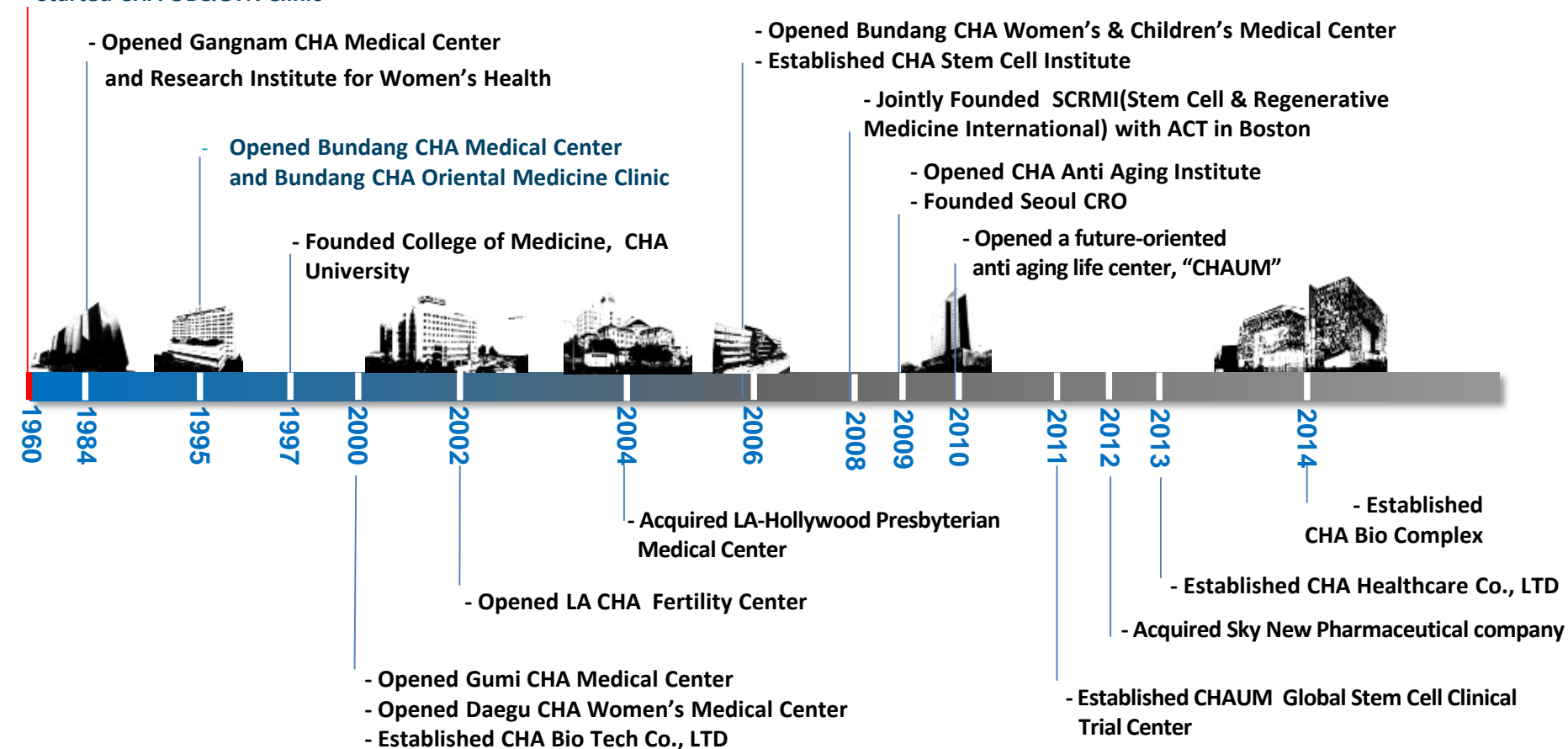


생태계 조성



Leading Global Healthcare Group through Industry-Academic-Research-Hospital Collaborations

- Started CHA OB&GYN Clinic



Leading Global Healthcare Group through Industry-Academic-Research-Hospital Collaborations



Developing innovative drug with world-class stem cell technology

- Collaborations with University/Research Institute → Commercialization of basic research
- Customized stem cell banking solution offering diverse stem cell lines



CHA UNIVERSITY

Fostering differentiated medical leaders

- Combining comprehensive medicine with social science
- Operating the Graduate School of Integrated Medicine for personalized medical service

9 Research Institutions



의료법인 성광의료재단차병원



Top 10 Research-driven hospital








Korea's First Medical Export

Total Life center of the future

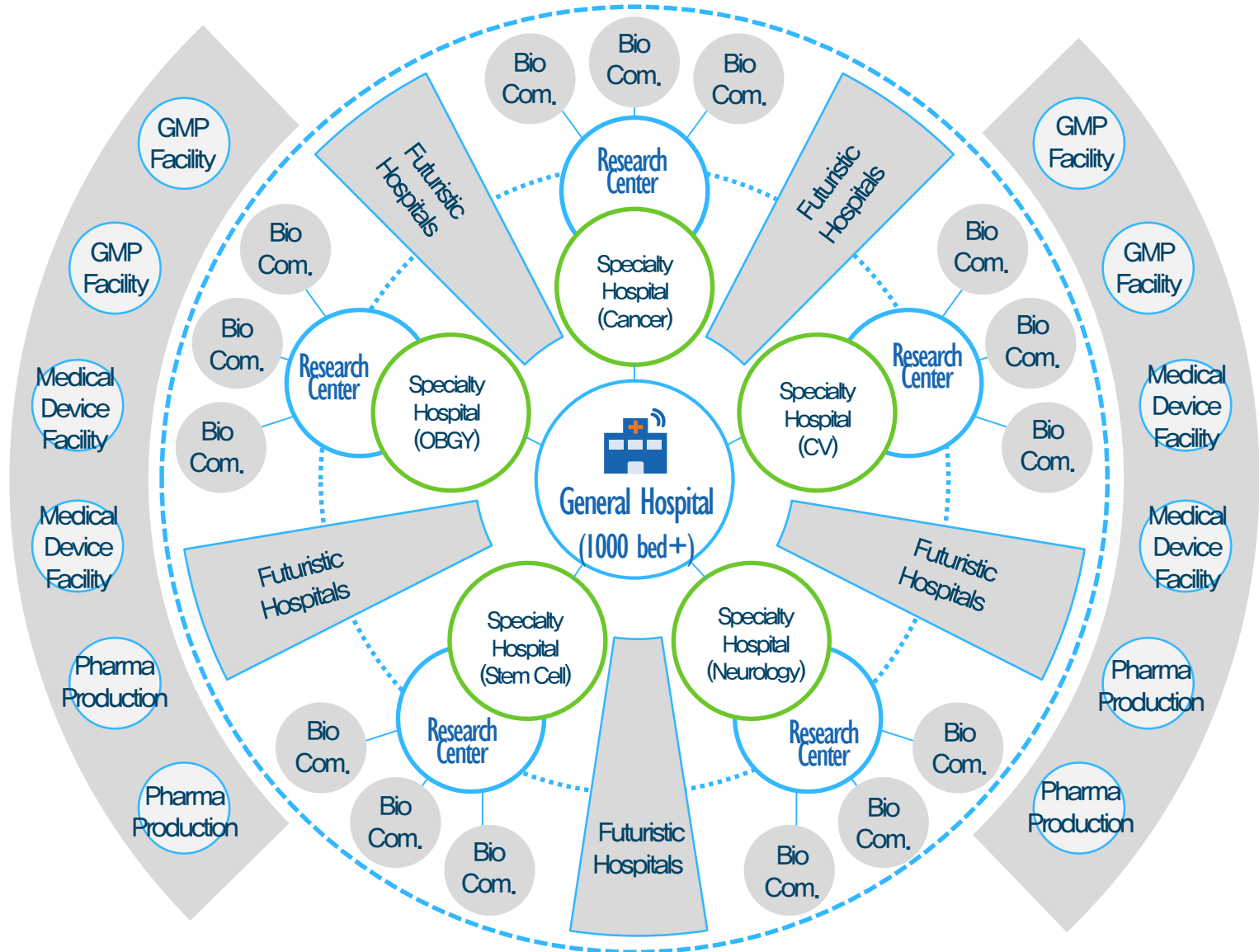
Immunocyte treatment specialized Medical institution

Bio-city in the center of bio-fusion ecosystem

Focusing on early Clinical Research, Cell Therapeutics, Personalized Healthcare Services and Infertility Treatments

	Strategic Target	Status	Achievement
Research Driven Hospital 	Top-tier hospital specialized in clinical trials	 <ul style="list-style-type: none"> Execution of collaboration agreement w/ Paraxel (2015) Bunddang CHA as an another site for Paraxel 	<ul style="list-style-type: none"> Four on-going global phase 1 trials Collaboration w/ Harvard and Wake Forest etc.
Cell Therapeutics 	No.1 Stem Cell Research	<ul style="list-style-type: none"> 5 SIT on-going 18 IIT on-going 8 collaborations on-going 51 patents 	<ul style="list-style-type: none"> World' s 1st Adult Somatic Cell Nuclear Transfer Success Successful treatment for cerebral palsy using UCB
Personalized Healthcare Services	Establishing Disease Prevention System	 The world' s largest total life center with integrative medicine model (2015~)  Medical institution specializing in immunocyte treatment (2014~)	<ul style="list-style-type: none"> Proving anti-aging effect Development of anti-aging program Establishment of immune therapy
Infertility Treatment	World-Class Treatment for Infertility	 The world' s most recognized research institutes (1984~)  The largest fertility center in Asia (2016~)	<ul style="list-style-type: none"> Innovative treatments and patents for infertility Multiple outstanding research awards by intl' society

Bio City





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