



UnicoCell  
B I O M E D

# UnicoCell Biomed Co. Ltd. (6539)

# Disclaimer

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## Health

Health food development

## Beauty

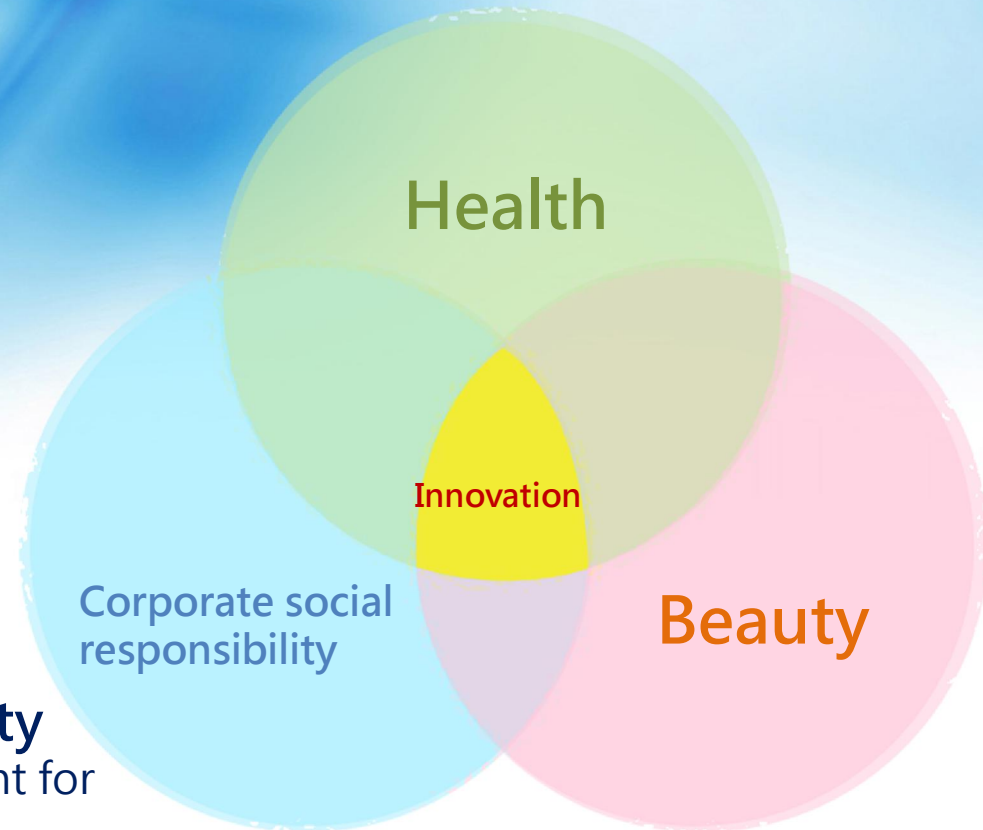
Products and service for inner and outer beauty

## Corporate social responsibility

More efficient and harmless treatment for contribution to the community

## Innovation

Stem cell research as our foundation





- **Biomedical ; stock symbol 6539**
- **Paid in capitol : NTD 276,640,000**
- **H1 revenue : 362,302,000 NTD**
- **Net profit margin : 27.16%**
- **Employee number : 307**

2014

2015

**IPO**  
**clinical trials**

2013

2012

2011

**UnicoCell  
Establishment**

- Stem cell laboratory establishment
- Stem cell manufacturing development
- ISIS skin care products

- Development
- Clinical testing
- Branch office establishment - Zhongxiao, Ximen, Taipei station, and Kaohsiung

- Branch office establishment-Taichung, Taoyuan, and Xinyi
- Biotechnology and new drug company certification
- Completing UnicoCell series products and becoming a main supplier for Jing-chi aesthetic medical association

- Good laboratory completion
- Human organ bank certificate
- Listed on Emerging Stock Exchange: May 2015
- OTC: Oct. 15, 2015



Dr. James Tsai  
President and Director

- Ph.D. in biochemistry, National Taiwan University
- Postdoctoral fellow, Harvard University, USA



Michele Lee  
Chief operating officer

- Marketing assistant manager, Kelti International Co., Ltd.
- 10 years experience in aesthetic medicine business



Eric Huang  
Chief financial officer

- Vice president, PwC Taiwan
- Chief financial officer, Min-Sheng medical system
- Chief financial officer, M association, Foxcoon Technology Group



Susanna Wu  
Accounting manager

- Deputy manager, PwC Taiwan
- Executive assistant, Young Energy Source Co., Ltd.
- Yonglin Biotech Corp., vice president of business management



Dr. YiPei Hung  
R&D manager

- Ph.D. in biochemical engineering, Birmingham University, UK
- Postdoctoral fellow in Institute biomedical engineering, National Taiwan University



**Planning, executing, and supervising business strategies, approaches, goals, projects, and new business development**

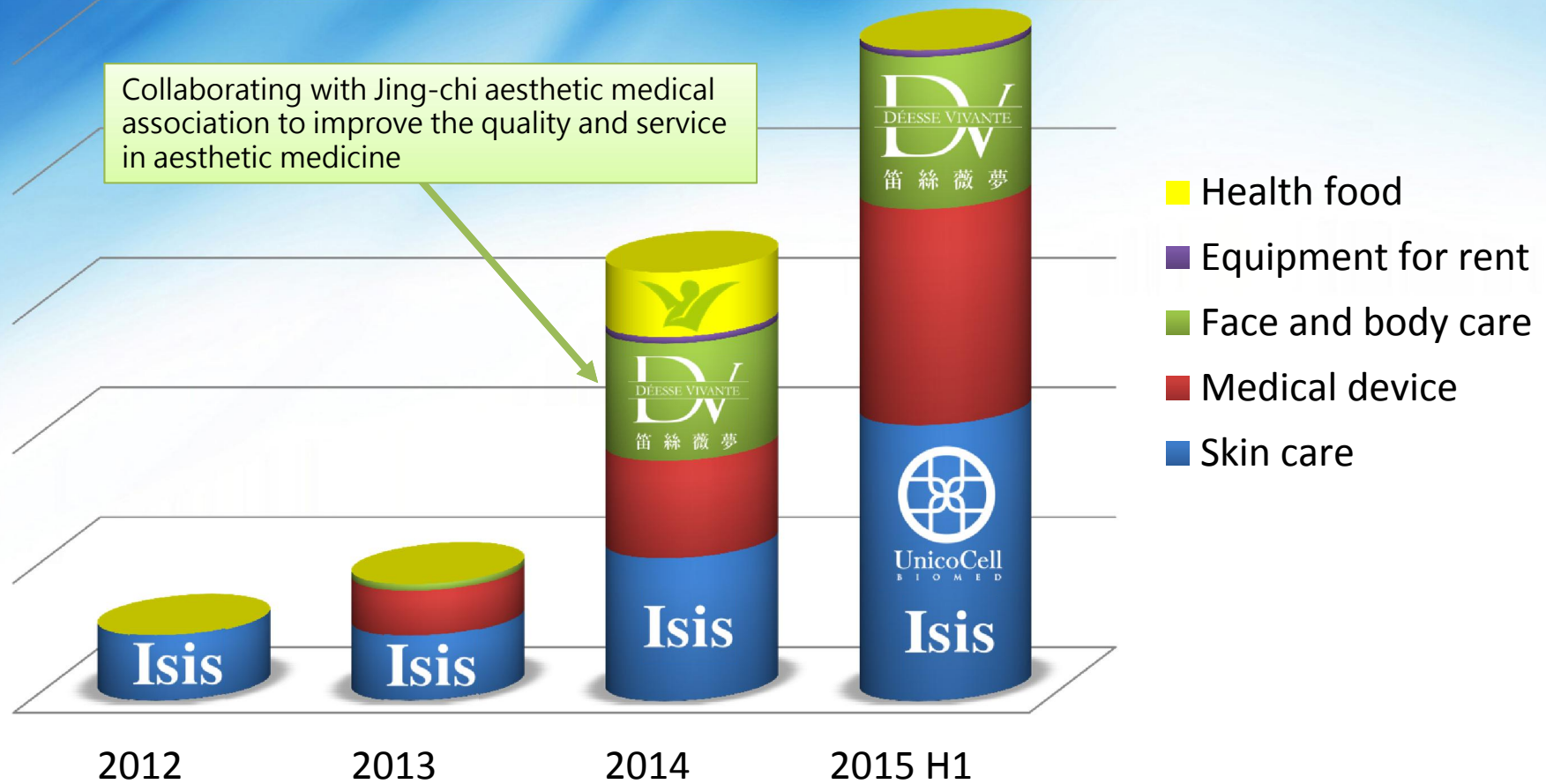


# Business operation overview

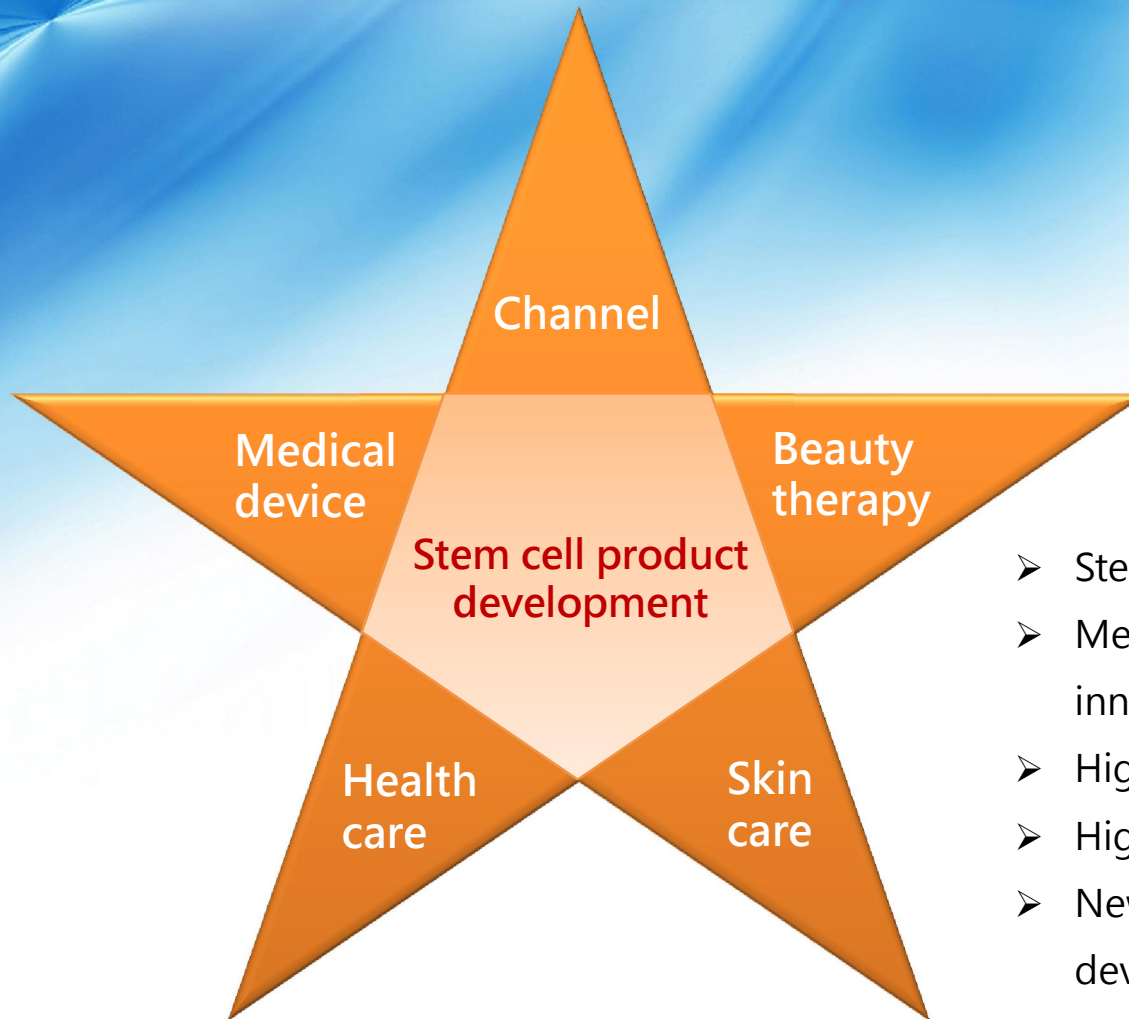
- Product release schedule
- Operation structure
- Competitive advantages
- Competitor comparison

# Product release schedule

Collaborating with Jing-chi aesthetic medical association to improve the quality and service in aesthetic medicine

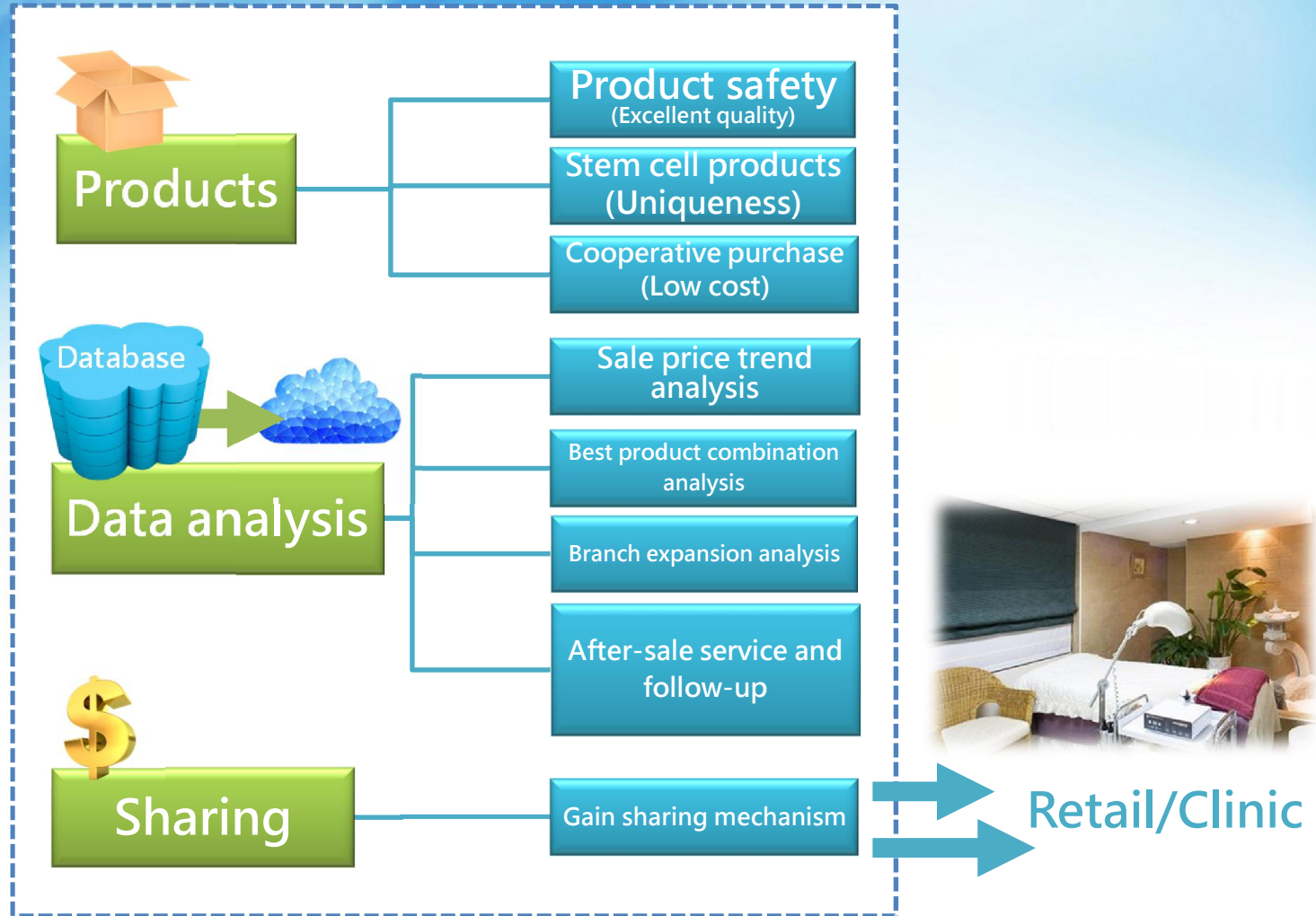
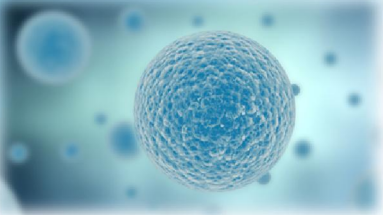




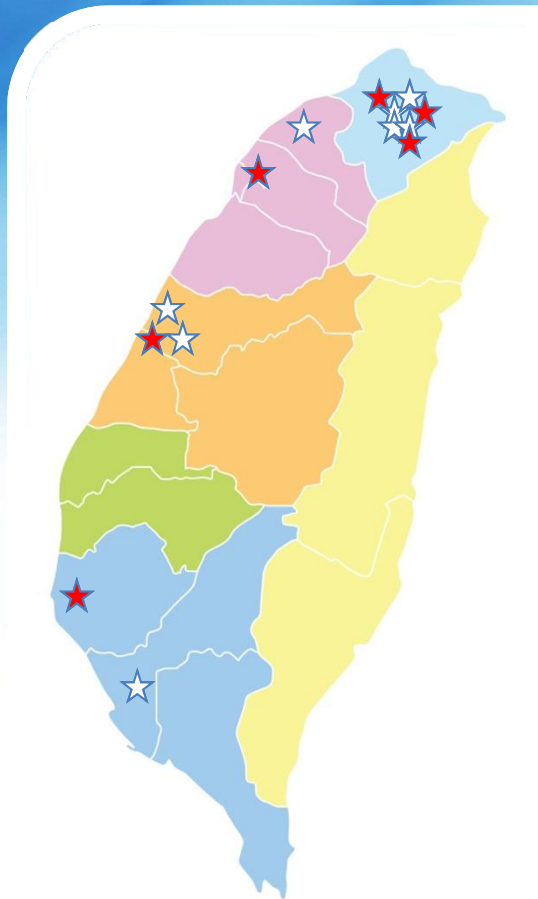


- Stem cell product development
- Medical grade skin care product innovation
- High efficient health food promotion
- High-quality medical device import
- New patterns of spa service development
- Physical channel placement completion

UnicoCell



## Beauty therapy physical channel perspective-Spa service retail expansion

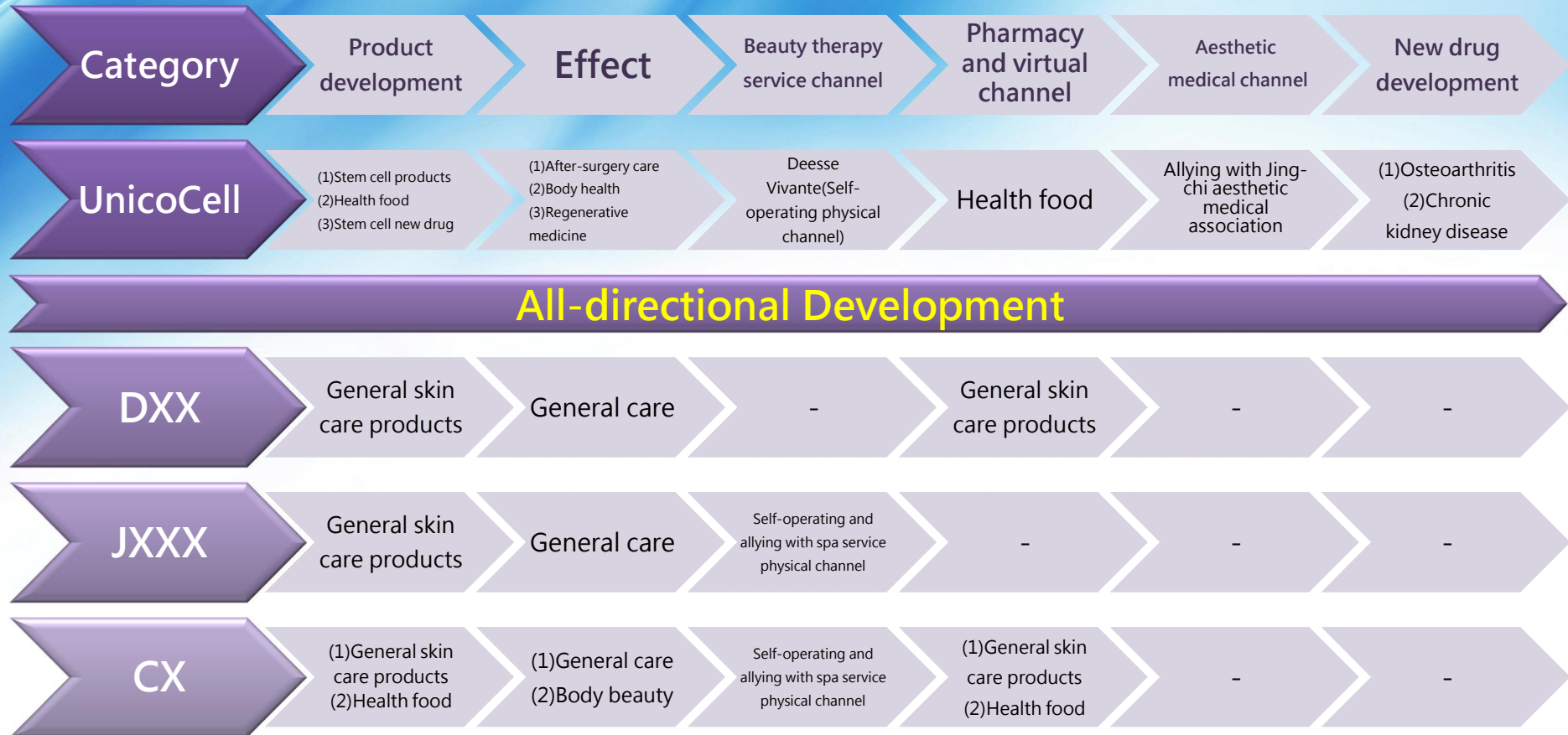


Continuous channel placement and occupancy expansion

- ☆ Current service retails
- ★ Future service retails







## 2016 Operation plans

- Health food independent development
- Medical devices franchises
- Clinical trial: stem cell therapy
- China: marketing channel establishment
- Japan: Stem cell research and liaison office



2015Q3 HCA&CGA  
Collagen capsules  
(franchise)

2016Q1 Green tea capsules  
(franchise)

2016Q3  
Independent-  
developed product

保健食品



2016Q1 Med<sup>2</sup>  
Contour Dual W



2016Q1 Uma Jeunesse HA filler



2016Q2 Beladona

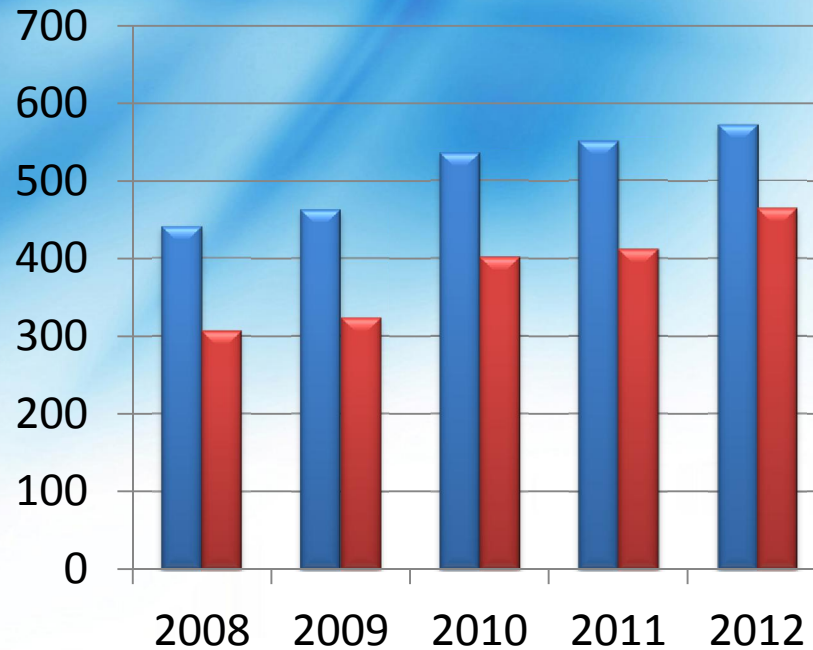


2016Q2 Lavieen

醫材代理



Expressed in  
100 million dollars (NTD)



Taiwan HA market

■ Import  
■ Export

Hyaluronic acid



Aesthetic medicine  
equipment



Tmall flagship store

Aesthetic medicine  
retail/clinic channel

Shanghai, China

Online shopping platform  
( JD.COM )

Social networking site  
( Wechat etc.)

# Financial situation

- Balance Sheets
- Statements of comprehensive Income
- Revenues & Net Profit
- Revenue Analysis of products



(Expressed in thousands of New Taiwan dollars)

Item	2013.12.31		2014.6.30		2014.12.31		2015.6.30	
	Amount	%	Amount	%	Amount	%	Amount	%
Current assets	142,846	81%	156,828	70%	465,019	80%	547,596	79%
Property, plant and equipment	23,541	13%	46,147	21%	91,232	16%	119,689	17%
Intangible assets	1,013	1%	928	-	785	-	780	-
Other assets	9,651	5%	21,074	9%	25,577	4%	23,459	4%
<b>Total assets</b>	<b>177,051</b>	<b>100%</b>	<b>224,977</b>	<b>100%</b>	<b>582,613</b>	<b>100%</b>	<b>691,524</b>	<b>100%</b>
Current liabilities	65,147	37%	103,425	46%	165,634	28%	167,182	24%
Non-current liabilities	34	-	1,072	-	5,223	1%	4,876	1%
<b>Total liabilities</b>	<b>65,181</b>	<b>37%</b>	<b>104,497</b>	<b>46%</b>	<b>170,857</b>	<b>29%</b>	<b>172,058</b>	<b>25%</b>
Share capital	92,000	52%	106,788	48%	227,000	39%	276,640	40%
Capital surplus	3,000	2%	3,000	1%	120,340	20%	134,340	20%
Retained earning	16,870	9%	10,692	5%	64,416	12%	108,486	15%
<b>Total equity</b>	<b>111,870</b>	<b>63%</b>	<b>120,480</b>	<b>54%</b>	<b>411,756</b>	<b>71%</b>	<b>519,466</b>	<b>75%</b>
Liability ratio	36.81%	-	46.45%	-	29.33%	-	24.88%	-
Current ratio	219.27%	-	151.63%	-	280.75%	-	327.54%	-
Account receivable turnover (time)	3.38	-	3.59	-	7.03	-	8.10	-
Inventory turnover (time)	1.49	-	1.29	-	2.91	-	4.89	-

## 2013 vs 2014 Statements of Comprehensive income

(Expressed in thousands of New Taiwan dollars)

Item	2013/Jan.-Dec.		2014/Jan.-Dec.		Growth rate
	Amount	%	Amount	%	
Operating revenue	131,307	100%	416,899	100%	217%
Operating cost	54,146	41%	181,726	44%	236%
Gross profit, net	77,161	59%	235,173	56%	205%
Operating expenses	58,465	45%	163,294	39%	179%
Operating profit	18,696	14%	71,879	17%	284%
Non-operating income and expenses	(356)	-	1,025	1%	-388%
Profit before income tax	18,340	14%	72,904	18%	298%
Income tax expenses	3,256	3%	12,358	3%	280%
Profit for the year	15,084	11%	60,546	15%	301%
EPS (in dollars)	1.46		3.96		

## 2014 H1 vs 2015 H1 Statements of Comprehensive Income (For the six-month)

(Expressed in thousands of New Taiwan dollars)

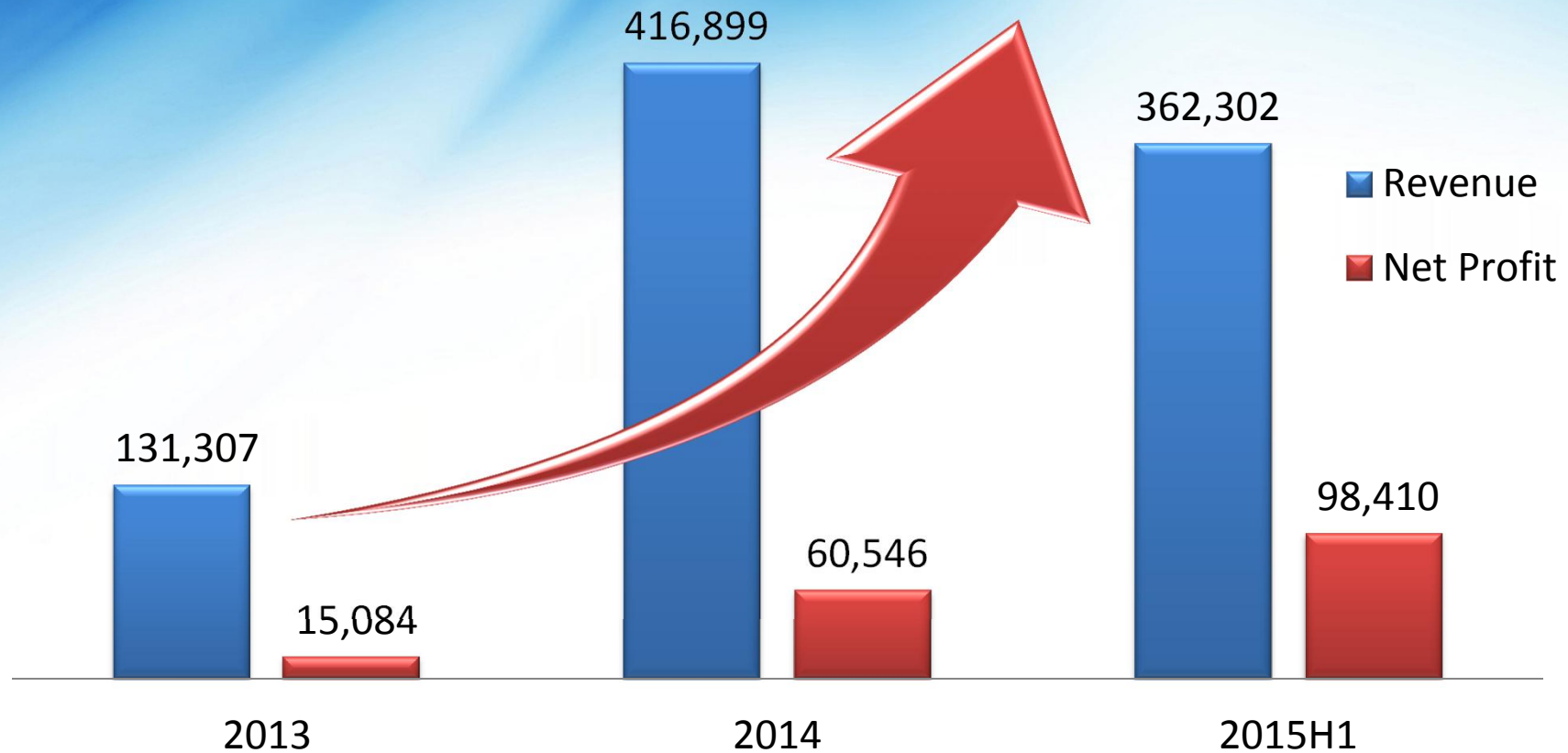
Item	2014/Jan.-June		2015/Jan.-June		Growth rate
	Amount	%	Amount	%	
Operating revenue	106,142	100%	362,302	100%	241%
Operating cost	49,866	47%	163,271	45%	227%
Gross profit, net	56,276	53%	199,031	55%	254%
Operating expenses	48,188	46%	83,802	23%	74%
Operating profit	8,088	7%	115,229	32%	1325%
Non-operating income and expenses	13	-	2,367	-	18108%
Profit before income tax	8,101	7%	117,596	32%	1352%
Income tax expenses	1,279	1%	19,186	5%	1400%
Net profit	6,822	6%	98,410	27%	1343%
EPS (in dollars)	0.59		3.60		




# Revenues & Net Profit

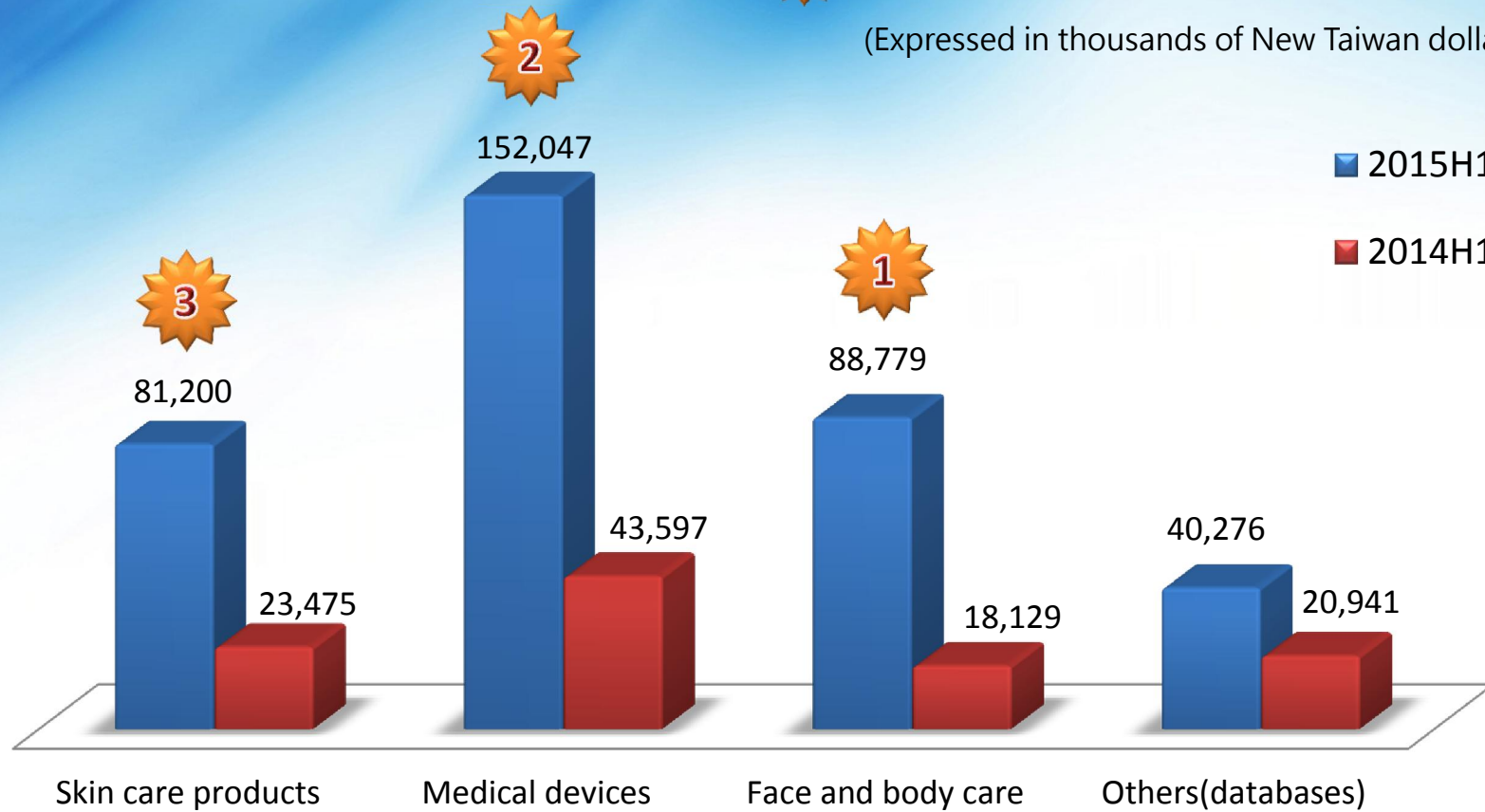
Growth rate of operating revenue and income is more than doubled from 2013 to 2015H1

(Expressed in thousands of New Taiwan dollars)



# Revenue Analysis of Products

 Operating profit growth ranking  
(Expressed in thousands of New Taiwan dollars)



# R&D Main Scheme

Future medicine- Stem cells



# Differences between mesenchymal and hematopoietic stem cells

	Mesenchymal stem cells	Hematopoietic stem cells
Abbreviation	MSC	HSC
Function	Differentiating to <ul style="list-style-type: none"> <li>-Adipose cells</li> <li>-Fibroblasts</li> <li>-Myocytes</li> <li>-Osteocytes</li> <li>-Chondrocytes</li> </ul>	Differentiating to Hematocytes and immunocytes
Indication	<ul style="list-style-type: none"> <li>-Type I Diabetes</li> <li>-Multiple Sclerosis</li> <li>-Skin cell activation</li> <li>-Hair regeneration</li> <li>-Skin ulcer</li> <li>-Organ engineering</li> <li>-Cell grafting</li> <li>-Neuron diseases</li> </ul>	<ul style="list-style-type: none"> <li>-Cerebral Palsy</li> <li>-Leukemia</li> <li>-Pre-leukemia</li> <li>-Lymphoma</li> <li>-Hemophagocytic syndrome</li> <li>-Myeloma</li> </ul>
Source	<ul style="list-style-type: none"> <li>-Adipose tissue</li> <li>-Endodontium</li> <li>-Wharton' s Jelly</li> </ul>	<ul style="list-style-type: none"> <li>-Umbilical cord blood</li> <li>-Bone marrow</li> <li>-Peripheral blood</li> </ul>

# Expected effects

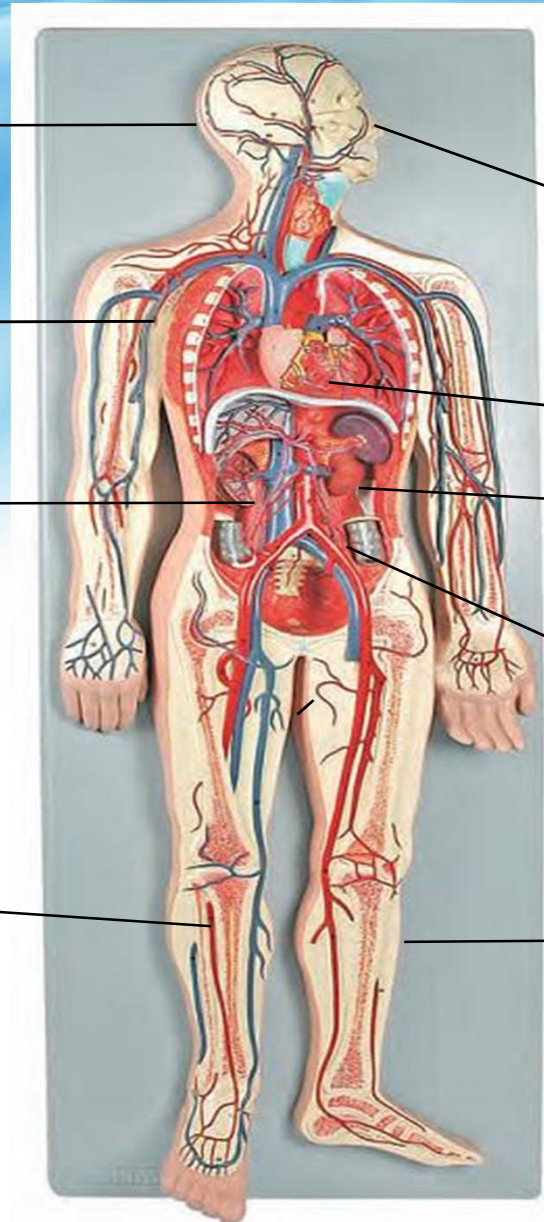
Hair regeneration

Increased blood  
nutrition provision

Liver function  
improved

Erectile dysfunction  
treatment

Cartilage and bone  
tissue repair



Retinal prosthesis  
Eye diseases treatment

Damaged cardiac muscle repair

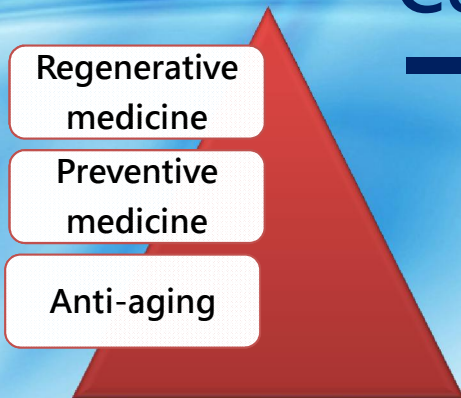
Insulin secretion  
Improved diabetes

Delay renal failure

Osteoarthritis treatment

**From Head to Toe**

# Cell therapy strengths



Fewer enrollment and shorter trial period

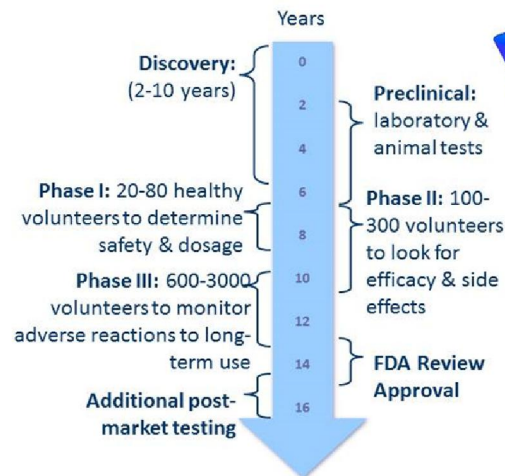
Lower R&D expenses

One drug, multiple applications

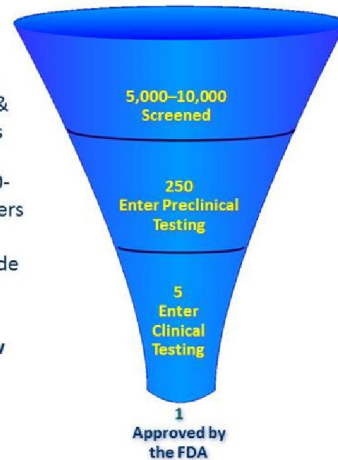
## Ordinary drugs

## Cell therapy

R&D is risky & costly



Compound Success Rates by Stage

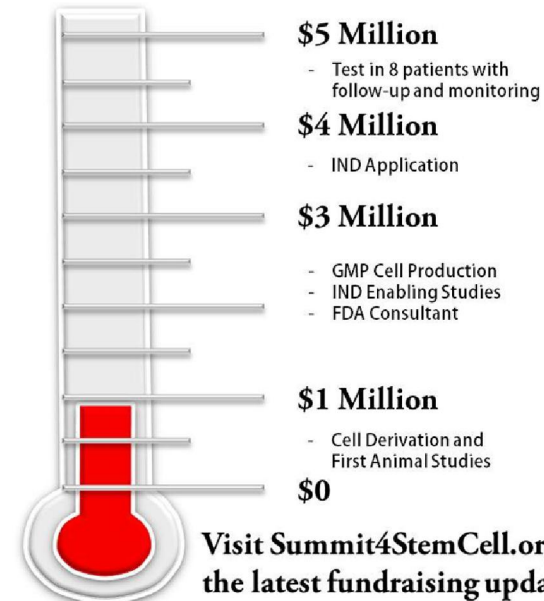


Net Cost: \$802 million invested over 15 years

2003 → 0.8B

2013 → 2.6B

Funds Needed



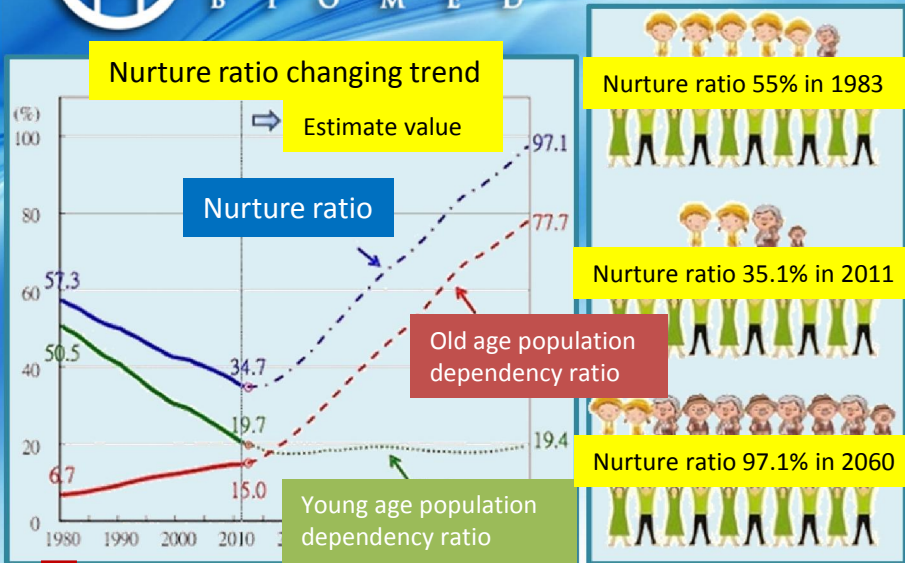
Visit [Summit4StemCell.org](http://Summit4StemCell.org) for the latest fundraising updates

Forbes / Healthcare, Fiscal, And Tax  
Crisis In Pharma R&D: It Costs \$2.6 Billion To Develop A New Medicine; 2.5 Times More Than In 2003

Source: PhRMA Pharmaceutical Industry Profile 2003, Chapter 1: Increased Length and Complexity of the Research and Development Process. DiMasì, JA, Hansen, RW, Grabowski, HG. "The Price of Innovation: new estimates of drug development costs." *J Health Economics*. 2003;22:151-185. [Bradley J. Fikes](#) | 6:12 p.m. Dec. 13, 2013., Parkinson's stem cell project aims for 2014 approval.



# Aging population demands

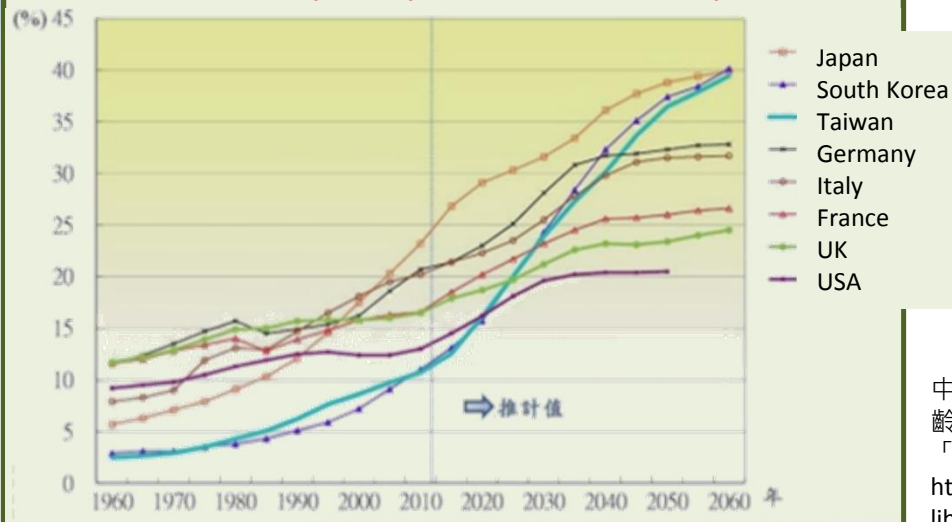


**The Department of Economic and Social Affairs of the United Nations  
World Population Ageing report :**

- Aging population is the global trend
- Elderly population will be more than child population in 2047
- Elderly care will become a main social and economic problem
- Elders live alone is getting more common
- Strengthening labor market policy and human resource investment

- The definition of elders (UN): over 60 years old (different from normal definition: >65 years old)
- Nearly all the countries face the problem of aging population, especially the aging rate is the fastest in developing countries
- The elderly population is 17.4% over the total population in Taiwan
- The expected elderly population will be 43.6% in Taiwan in 2050
- The aging rate in Taiwan is rapid, and the elderly population has been more than child population (0-14 years old) in 2011
- Elders live alone: problems for elder financial safety and medical care
- Currently it is demographic dividend, but working-age population has started to decrease after reaching a peak in 2015

**Aging trend in every country, the proportion aged 65-years or over**



中華民國2012年至2060年人口推計，行政院經濟建設委員會；聯合國世界人口高齡化趨勢分析新聞稿；國發會人力發展處103年2月21日從「需求」、「供給」和「資金」看台灣房價：文/ House123 邱愛莉

<http://image.slidesharecdn.com/20130701-libraryviews-130703190856-phpapp02/95/-13-638.jpg?cb=1430967908>

Country	Product name/ Company	Source	Indication	Year ( on the market )
Europe EMA	ChondroCelect (Belgium TrGenix)	Autologous chondrocytes	Knee joint defect repair	2009.10
USA FDA	Prochymal (USA osiris)	Human allogenic bone marrow-derived MSC	GvHD and Crohn	2009.12
Australia TGA	MPC (Australia Mesoblast)	Autologous bone marrow-derived MSC	Bone repair	2010.07
USA FDA	Sipleucel-T (Provence)	Dendrite-derived cells	Terminal prostate cancer	2011.04.29
Korea FDA	Hearticellgram-AMI (FCB-pharmicell)	Autologous bone marrow-derived MSC	Acute myocardial infarction ( AMI )	2011.07
USA FDA	Hemacord (New York Blood center)	Umbilical cord blood-derived Hematopoietic stem cells	Genetic or Acquired hematopoietic system diseases	2011.11
Korea FDA	Cartistem (Medi-Post)	Umbilical cord blood-derived MSC	Osteoarthritis and knee cartilage damage	2012.01
Korea FDA	Cuepistem (Anterogen)	Autologous adipose-derived MSC	Complex Crohn's disease complicated with anal fistula	2012.01
Canada	Prochymal (USA osiris)	Bone marrow-derived stem cells	GvHD	2012.05

Remark: ranking is based on the NDA completion date

2012.10.18

**NAR Labs** 國家實驗研究院  
科技政策研究與資訊中心

**STPI**  
科技產業資訊室

## ★ USA

- The production value of HA on the orthopedic market is close to 5.5 hundred million
- Osteoarthritis incidence is 80% among elders who are older than 75 years old
- The population of OA patients was 58 million in 2010, and will be more than 65 million in 2020

## ★ Europe

- The proportion of population aged 65 years or over is 18%, and the population of OA patients is predicted to reach 17.6% in 2015.

## ★ Taiwan

- The population of OA patients is around 4 million
- The demand for intra-articular injection solution is nearly 1.15 billion NTD in Taiwan



Hemodialysis industrial scale  
 USD 63.3 billion, 2009  
 USD 83.6 billion, 2013

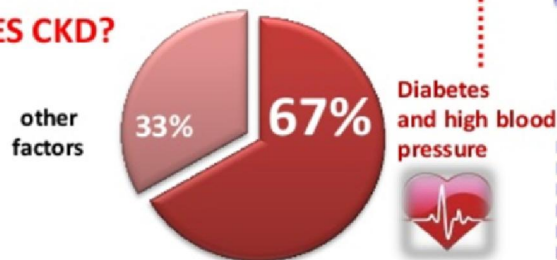


about 1 in 10 people  
 have some  
 degree of CKD

### Other facts about Chronic Kidney Disease (CKD):

- It is estimated that about **1 in 5 men** and **1 in 4 women** between the **ages of 65 and 74**, and **50% of people aged 75** or more have CKD.
- Kidney disease causes hypertension, which affects **80%** of kidney patients.
- Kidney disease also accelerates the progression of heart disease and increases the risk of heart attacks and heart-related death.
- Heart disease is the major cause of death for all people with CKD.

### WHAT CAUSES CKD?



## CKD: worldwide

*\*Chronic Kidney Disease stats*

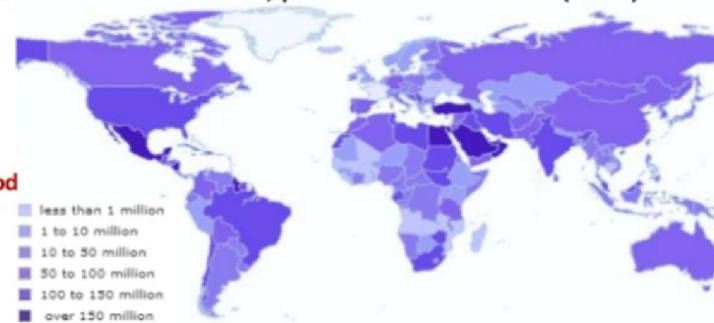
### YOU ARE IN A HIGH RISK GROUP IF YOU:

- ✓ have diabetes (see map of diabetes prevalence worldwide)
- ✓ have anemia
- ✓ have high blood pressure
- ✓ have a family history of kidney failure
- ✓ are older
- ✓ belong to a population group that has a high rate of diabetes or high blood pressure, such as African Americans, Hispanic Americans, Asian, Pacific Islanders, and American Indians.



Kidney failure interferes with your body's natural immunity, making it easier for you to get some types of diseases like **hepatitis B and C and HIV/AIDS**.

### IDF Diabetes Atlas, prevalence worldwide (2012)



MARKET

CONCEPT

EFFICIENCY

DESIGN

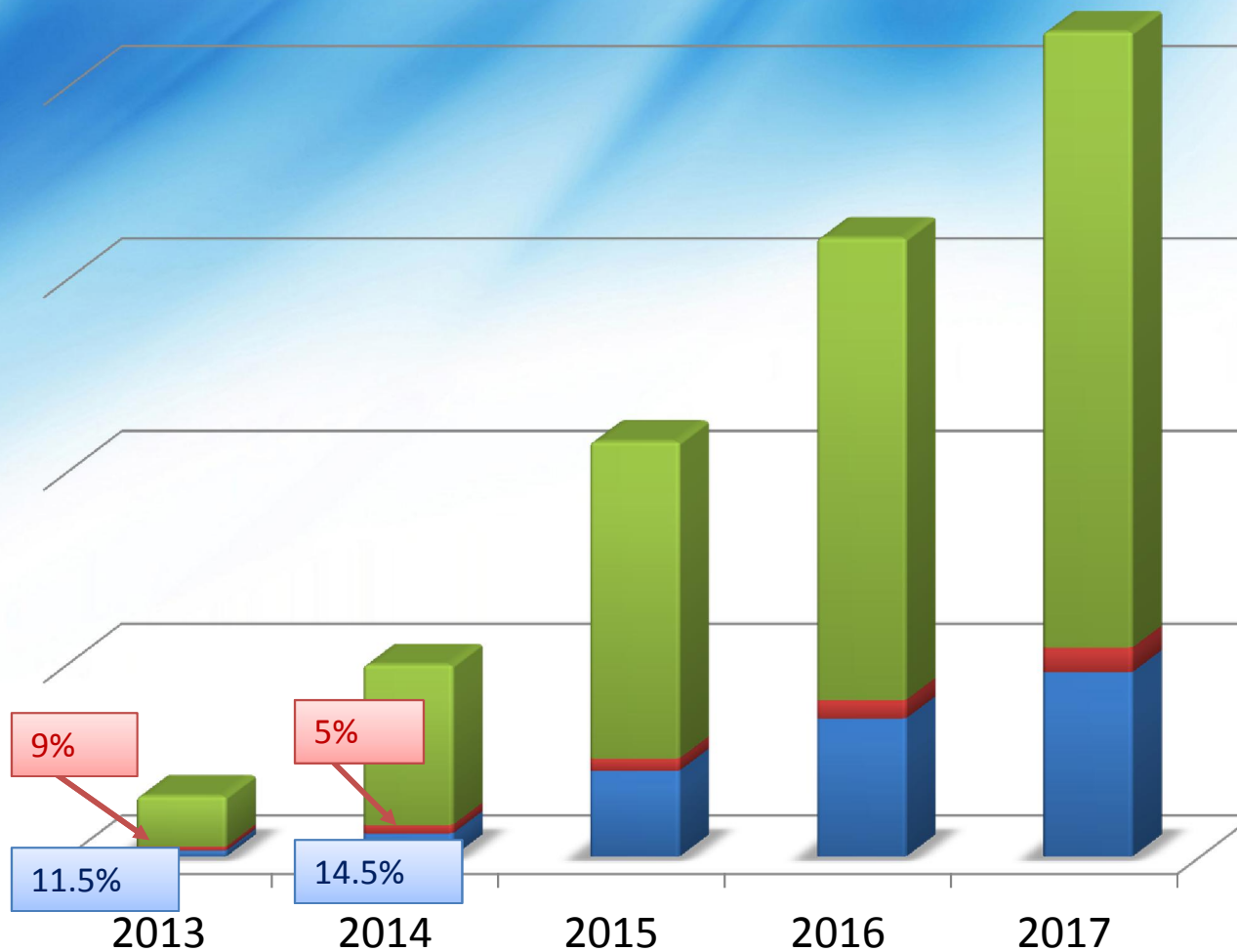
貿易TRADE MAGAZINE產業趨勢,  
 慢性病患激增洗腎市場飛速成長,孫慶龍,2013.6. N264

Data sources: National Kidney Foundation (NKF), [www.kidney.org](http://www.kidney.org), [www.idf.org/atlasmap](http://www.idf.org/atlasmap)



	Indication	Clinical use	Developing period
ELIXCYTE	OA	Pain relief Reduced chemical drug use Cartilage repair and proliferation	IND-Phase I/II conduction Phase II/III preparation Multiple dose efficacy
	CKD	Kidney cell differentiation and proliferation (glomerular mesenchymal cells, epithelial cells, endothelial cells and etc.) Islet-like cell differentiation Immunomodulation	Pre-clinical experimental protocol completion Pre-clinical preparation CDE consulting

UnicoCell will continuously invest R&D to develop new drug and new products. The investment will only be 3-5% of operating income due to an increased income annually.



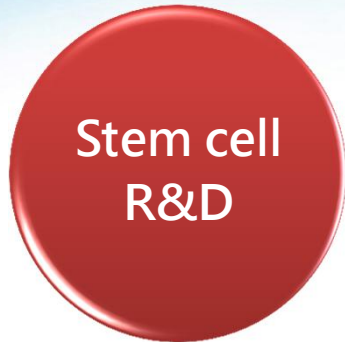
- Operating income
- RD expenses
- Surplus



Supply chain integration  
 Patent reagents and consumables development  
 Exclusive and risk analysis



Cell therapy  
 Clinical application  
 Preventive medicine and anti-aging



Other indication exploration  
 Future medical technology combination  
 3D printing/biomaterial scaffolds  
 Stem cell differentiation application



Channel arrangement  
 Sales strategy  
 Marketing plan

## China and South-east Asian market expansion (long term)

- Completing NDA in Taiwan, Japan, and China
- Expanding to Singapore and South-east Asian markets

## Innovation Development (mid-long term)

- Establishing stem cell operation in Japan
- Conducting stem cell clinical trials in Taiwan, Japan, and China
- Establishing online shopping platform and aesthetic medical channel for stem cell relative products

## Aesthetic medicine channel establishment (medium term)

- Expanding collaboration with aesthetic medical channel
- Applying and obtaining certificates for medical devices franchises
- Developing health food

## Initial Public Offer (short term)

- Improving organization, finance, management, and internal control system.
- Applying IPO in 2016

Thank you for your  
attention