

# CEO Information

2004.10.27 ( 473 )

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《 》

가  
 가 30  
 20  
 10 가 ,  
 가  
 21  
 U- GMO 4  
 7 2010 3,400  
 가 , 가  
 가 가 . IT  
 . BT · IT , 가  
 R&D ,  
 가  
 ( )

		1)			2)
		가			
			X		
IT	U-Health				
GMO	GM			X	

: 1) , , X , 2) > >

가

가

(Genome)<sup>1)</sup> ,  
가

- 2003 4 , 30 가

• : 1990 , , 15  
2000 6

- 2004 2

<sup>2)</sup>

- 2004 LG " "가 FDA  
( 11 )

• 9 가 (Oscient)社가

• 10

- 5 ' , ' ' ,  
690

70 1 , 90 2

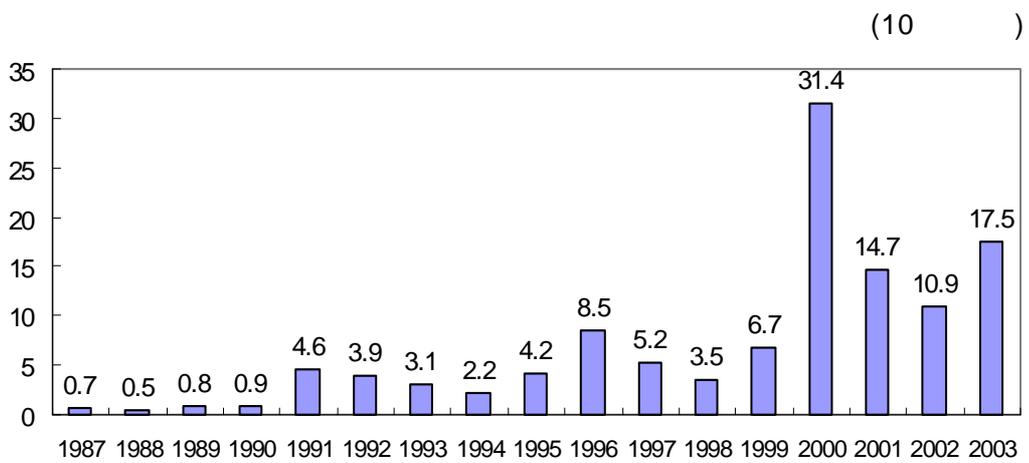
<sup>1)</sup> DNA 가 (block) , 30 DNA  
3 ~4

<sup>2)</sup> 가 ( 5, 6 ) , 가 가 가  
가 가

- 1 : 70

- (Genentech, 1976 ), (Amgen, 1980 )

- 90 2 가



: www.signalsmag.com

- , 90 10

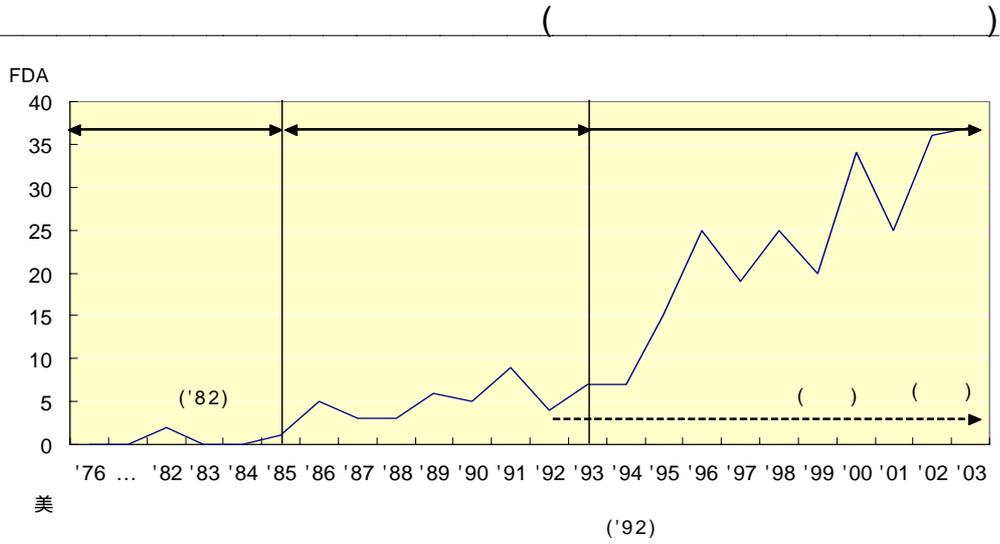
30

- 1992 81 2003 350  
14% 가<sup>3)</sup>

- 1992 2004 가 FDA

- 16 , 22

<sup>3)</sup> "Editor's guide to biotechnology 2004", www.bio.org



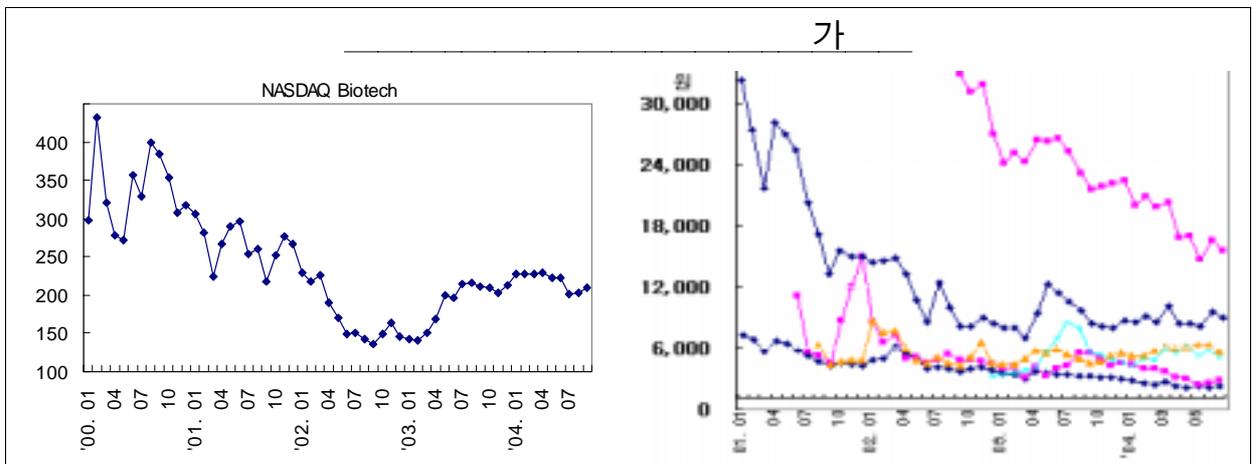
美 (www.bio.org)

가

가 2000

가

- LG, CJ



가 Data

- 18 가 100

• 2000~2001

( )

/		LG	** , ,
			* ,
			,
	GMO, 가		* ,
			* , , *
/			* , *
			, , ,

: \* , \*\*

가

가 21

- , IT,

• 10  
3 (MIT Technology Review, )

- ,

• 2002 (65 가  
7% ), 2019 14.4% 4)

- IT

4) 『 , , 2002.11

IT

( , 2000 )

				(2003 )
IT	20,652	12,456	6,759	4,915
	250,200	30,107	8,083	4,962

: " 가 , , 가 , 2004.10

가

가

-

•

가가

7

7

7

			2010 ( )	
	,		1,300	Amgen, Genentech, Biogen, LG
	,	•	400	Aastrom, ONYX, Vical, ,
U-	,		300	Affymetrics, Medtronics, , KT
GMO	,	,	150	Monsanto, Syngenta
	,		850	HP, GE, Agilent,
•	,		160	Shell, BP
			250	Cargill-Dow, BASF, Dupont

: Data Monitor, Frost & Sullivan, IMS Health, E&Y, signalmag.com, OECD





가

10 ( )

가 가

가 ' ' , 가

가 ' (Non-Zero)'가

- 가

-

-

6)

-

,

.

가 가

-

,

• 2010

4

7)

•

10

-

ISIS

8)

30

가

6)

가

가

,

.

가

가

<sup>7)</sup> Cell Therapies- Technology, Markets and Companies, Jain Pharmabiotech, 2004.10,

<sup>8)</sup> 가 (mRNA)

mRNA가

- , , . 가
- 12 , 1

/		,	( ), ( / 12 )
		,	( )
		, , ,	( , , )
		, RNA ,	( / )

:

### 3. U-

U- ' , '

- 가
- 가
- ' / '
- U- 가 ,

<p><b>U-</b></p> <p>(Abbott Lab) : , 가</p> <p>Living Independently社 :</p> <p>(Philips Medical) : (Implantable)</p>
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- , , •  
 9), 10)  
 ,

- , , ( ),  
 , , IT, ,

- U- 2014 340

- 2003 12 , 17  
 (2003 )

U-

	Affymetrix, TUM , ,	, , ,
U-	Bodymedia, Medtronic,	, LG , ,
U-	IBM Global, SECOM, SOK	KT, SKT, LG CNS, S&C, 365 ( )

U- 가  
 가

- IT ,

<sup>9)</sup> DNA, ( : DNA ,

<sup>10)</sup> DNA가 ) ( ) , ( ) ,

#### 4. GMO<sup>11)</sup>

GMO 가

- GMO , ,

- • •  
GMO

GMO 가 18

- 2003 , (63%), (21%), (6%),

(4%), (4%) 5 GMO 98%

• (15 ), (5 ), , ( 4 ) 40

- 2004 GMO 45 <sup>12)</sup>

GMO

- 45 GMO ,

4 •

- 40 GMO <sup>13)</sup>

<sup>11)</sup> Genetically Modified Organism( ) LMO(Living Modified Organism)

<sup>12)</sup> www.ISAAA.org

<sup>13)</sup> 『2003 』 , , 2004

GMO

	18,	1,	11,	2				
	2,	3,	3,	8,	2,	3,	2	
/	3,	1,	2,	3,	7,	2		

: 2003

GMO  
가

- GMO ( ) (EU)

-

• GMO 가 가

• GMO가

GMO

	<u>GMO</u>	<u>(Lock-In)</u>
	GMO	(Monsanto)社 1 (1 )
-		
	(Syngenta) GMO	가 가

5.



• • ,  
•

- 가 , B2B ,

가

- 가

• 50%,

16%

가

- 2003 282 ( 6% ),

240 ( 8%) <sup>14)</sup>

• 6,000 , 75

- <sup>15)</sup>,

• 가

	CT, MRI, , PACS	: GE, , ,
	/	: , , , ,
	DNA , , , ,	: Agilent, Applied Biosys,
	HPLC , / , ,	Thermo Electron, Shimadzu
		: , SKC

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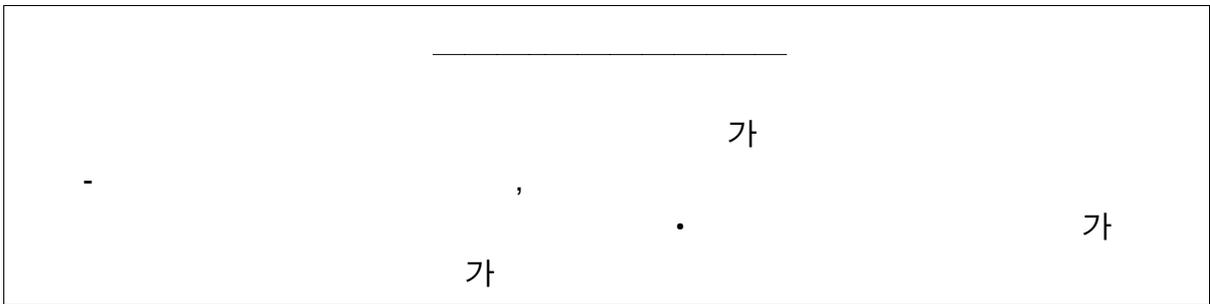
<sup>14)</sup> Yearbook of World Electronics Data, Reed Electronics Research, 2003, Deutsche Bank (2003)

<sup>15)</sup> , / / , / / ,

- ( )

- , ,

- ( ) 가 가



-

• (logen, )

- EU 2005 2%,  
2010 6%

- 2003 75 106  
, 12 가 가 <sup>16)</sup>

<sup>16)</sup> *The Economist*, 4/10/2004, p53

가

가

(Bio-refinery)'

- 가



가

- (Dupont), • (Cargill-Dow), ( )

- (Mitsubishi Rayon), : (Ciba), (Baxenden), (BASF)

- 5% 17)

- , , 11

(2004.3)

<sup>17)</sup> R. Bachmann, "Industrial Biotech: New Value-Creation Opportunities", Presentation at the Bio-Conference: New York, 2003

가 , ,  
가

-  
•

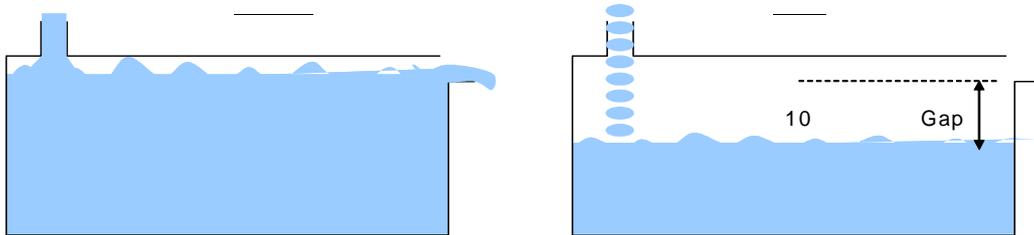
가

-  
•

가

가

- 30  
• 「 」 (1993) 가  
• 15



-  
• 10 18),  
가

<sup>18)</sup> Healthcare Industry Market Update, Centers for Medicare & Medicaid Services, Jan 10, 2003

-

•

(best practice)

-

LG						
LG	1984		20			
(2003	1,790	,	-6	,	가	5,047 (10 25 )
20 4		( )	,			FDA 1
		12				
-		' '	가		2	
	,	,				

- IT ' (catch-up)' ,  
가 가

-

가 가

•

, IT

-

, , , , U-

( )

		1)			2)
		가			
	3)				
			x <sup>4)</sup>		
IT	U-Health				
GMO	GM			x	

: 1) , , x

2) > >

3) ,

4) 2015 ,

: Data Monitor, Frost & Sullivan, Signalmag.com

### R&D

#### R&D

- 가 •

-  
• 가

- , •  
• ,

-			
-	•		-
		×	×
	-	×	×
( , )			

: , - , ×  
 : "Co-opetition and Performance: Evidence from European Biotechnology Industry", Velasco, Carlos A. Benavides, Annual conference of EURAM on Innovate Research in Management, Sweden, 2002

- (center of excellence)  
 •  
 • • •  
 - • •  
 가

1973	가		
1980 ( )~1997 ( )	2		
- 1996		3	2

•

, U-

•



## Trend

&lt; &gt;

	10. 19	10. 20	10. 21	10. 22	10. 25
/ ( 가 )	1,144.8	1,142.9	1,141.1	1,140.7	1,135.0
/	109.42	108.39	107.79	107.59	106.82
(3 AA-, %)	4.03	4.02	4.01	4.00	3.98
(3 , %)	3.57	3.56	3.55	3.54	3.52
가 (KOSPI)	855.8	828.6	820.6	828.2	808.1

&lt; &gt;

( ( ) , %)

	2002	2003	2004.5	6	7	8	9
GDP	7.0	3.1	5.5				..
	7.9	-1.4	-0.7				..
	7.5	-1.5	6.2				..
가	8.0	5.1	13.5	12.4	13.0	10.6	..
	78.3	78.4	81.3	79.8	79.4	78.7	..
	3.1	3.4	3.4	3.2	3.5	3.5	3.2
( )	(70.8)	(77.7)	(78.8)	(76.3)	(81.4)	(80.1)	(74.7)
	0.06	0.08	0.1	0.06	0.04	0.05	0.05
가	2.7	3.6	3.3	3.6	4.4	4.8	3.9
( )	1,624.7	1,938.2	208.2	216.1	210.1	198.0	210.2
( )	(8.0)	(19.3)	(41.9)	(38.0)	(36.2)	(28.8)	(23.5)
( )	1,521.3	1,788.3	179.0	185.4	183.6	180.4	182.0
( )	(7.8)	(17.6)	(32.3)	(38.1)	(23.2)	(33.2)	(25.2)
( )	53.9	123.2	37.1	21.8	32.3	11.0	..
( )	1,214.1	1,553.5	1,665.4	1,670.3	1,680.1	1,704.9	1,744.5
( )	1,439	1,609	1,697	..	..	..	..