

Various BioProducts

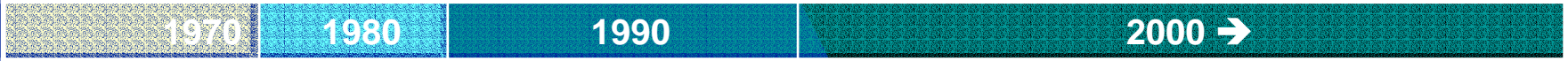
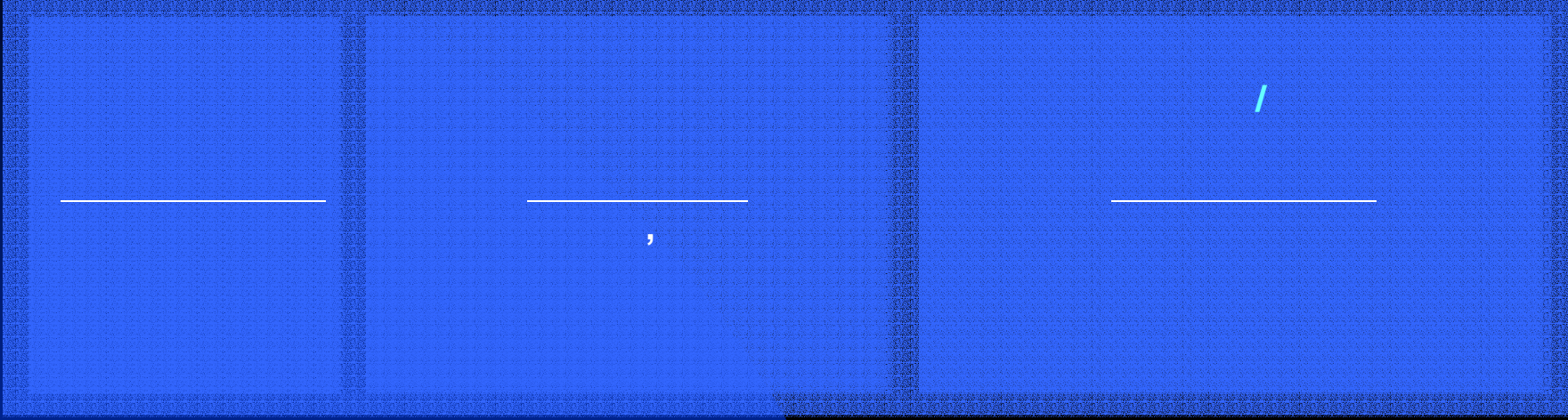
Reference : (LG)

SeungWook Kim

Laboratory of Bioprocess Engineering

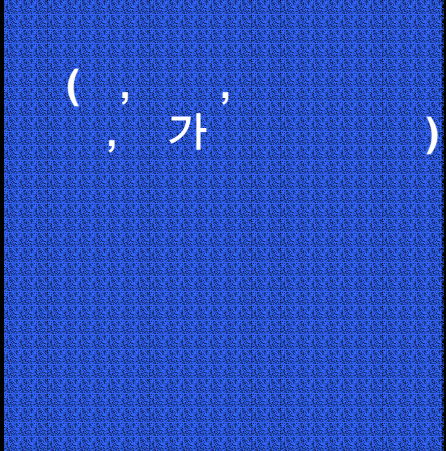
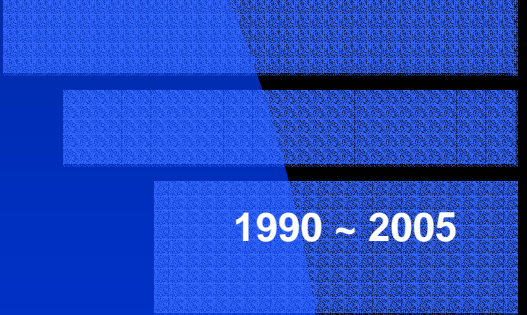
Department of Chemical and Biological Engineering

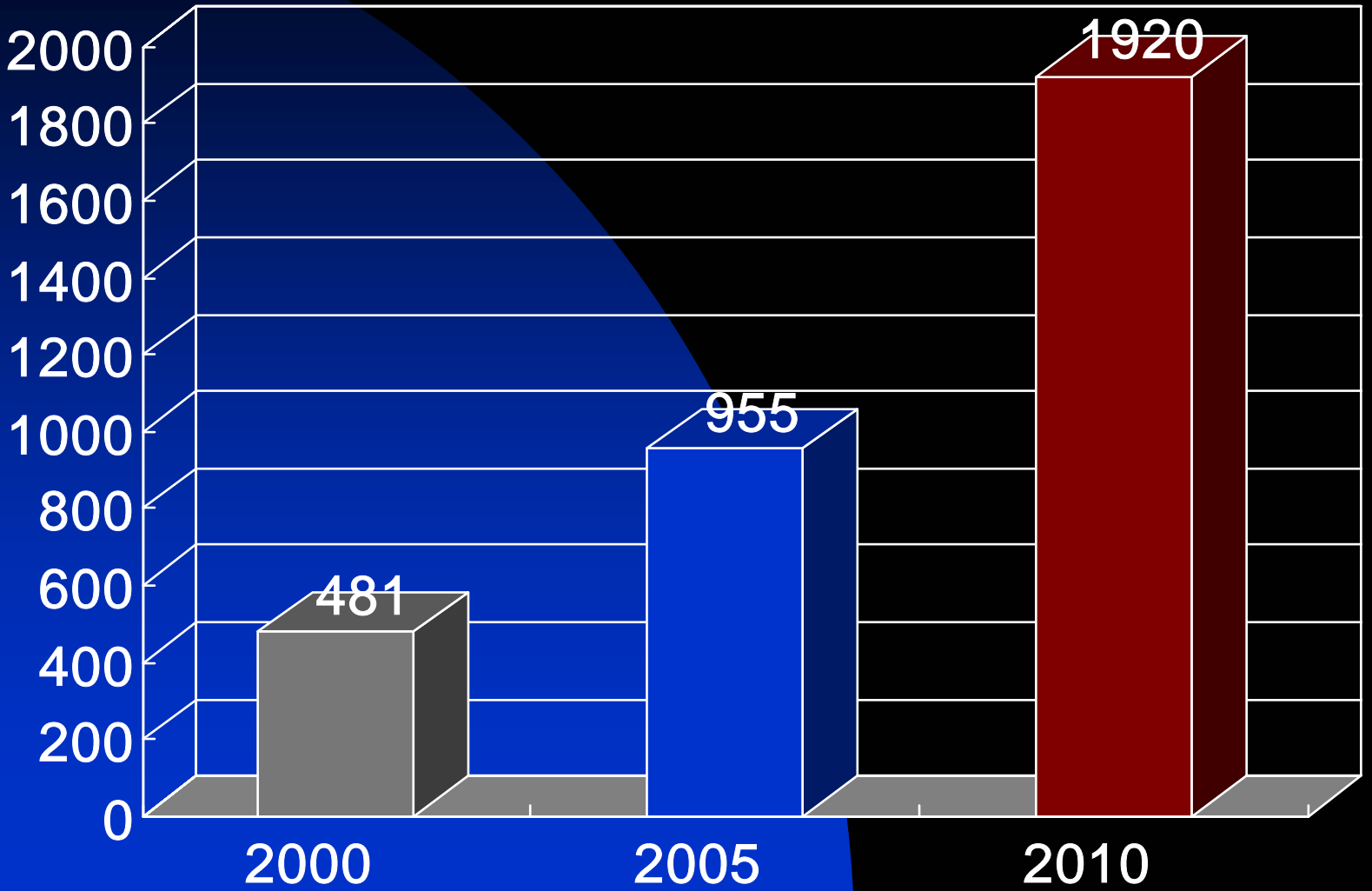
Korea University



1953
DNA

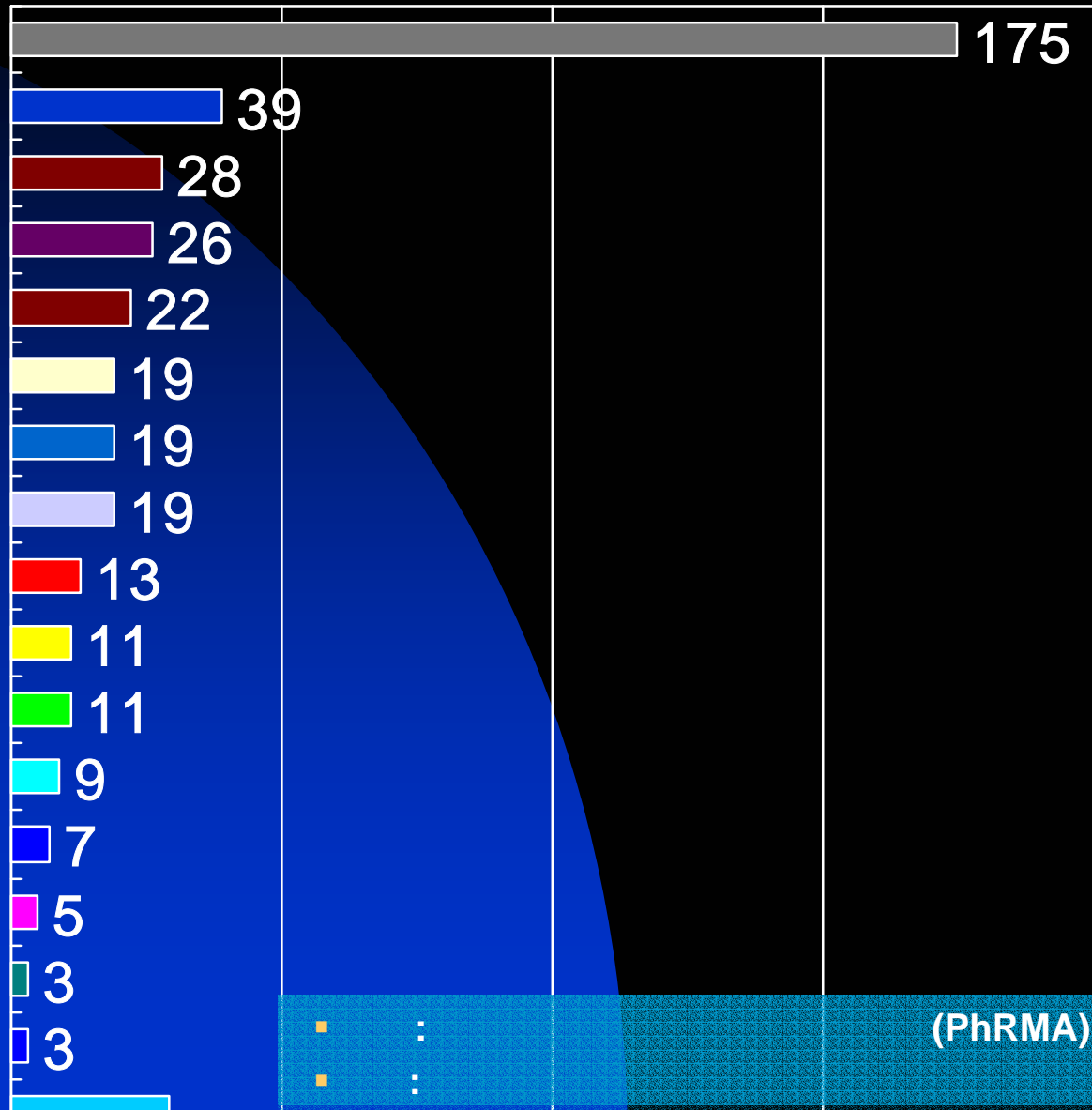
1982
FDA

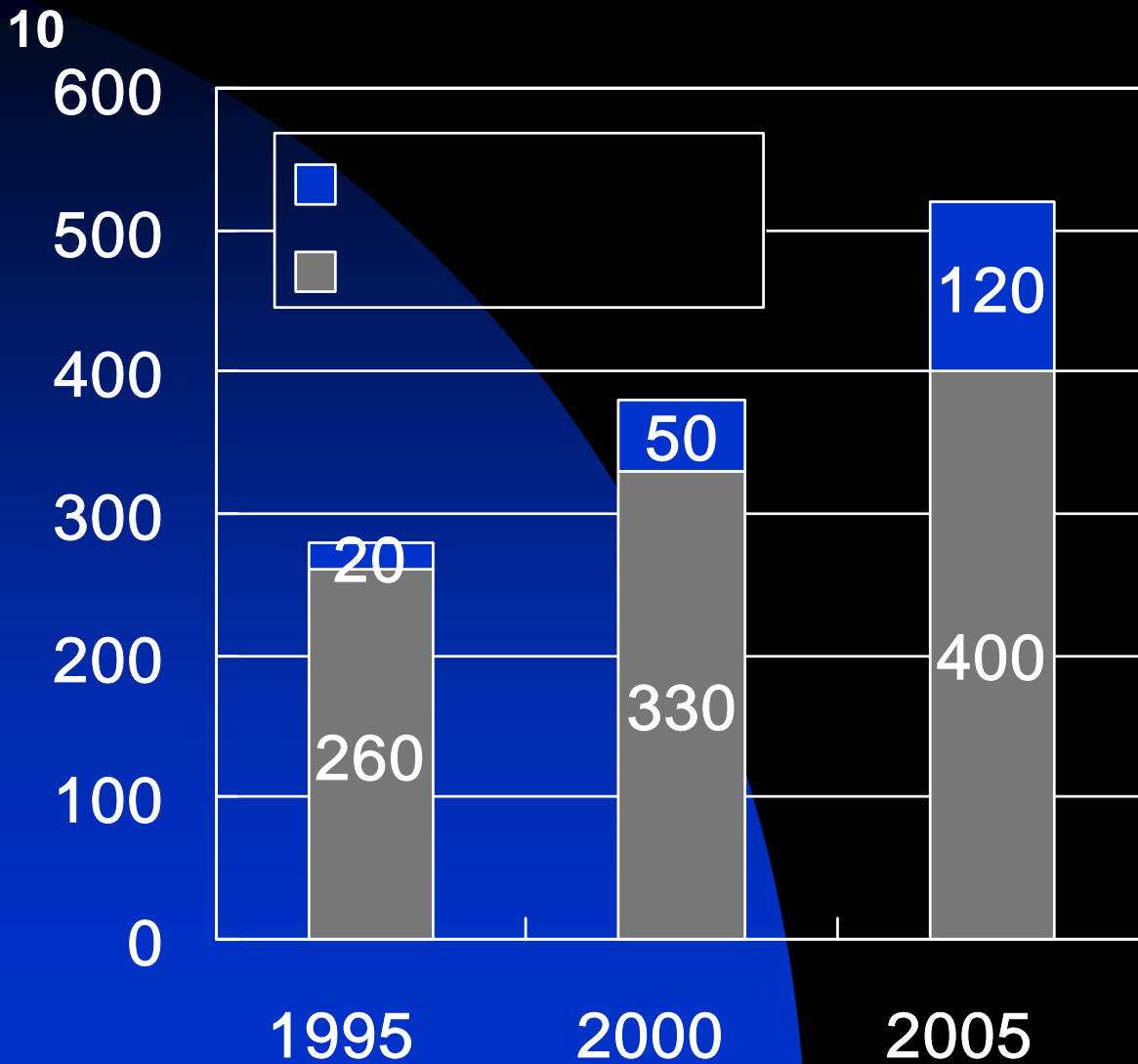






AIDS/HIV
가





관련 기술

- 유전자재조합 기술
- 지노믹스

추구 방향

- 안정된 식량 공급
- 환경 친화 및 에너지 소모 감소
- 삶의 질 향상

작물 보호

생산성 증대:

- 병충해 내성
- 제초제 내성
- 경작 용이

영양 개선

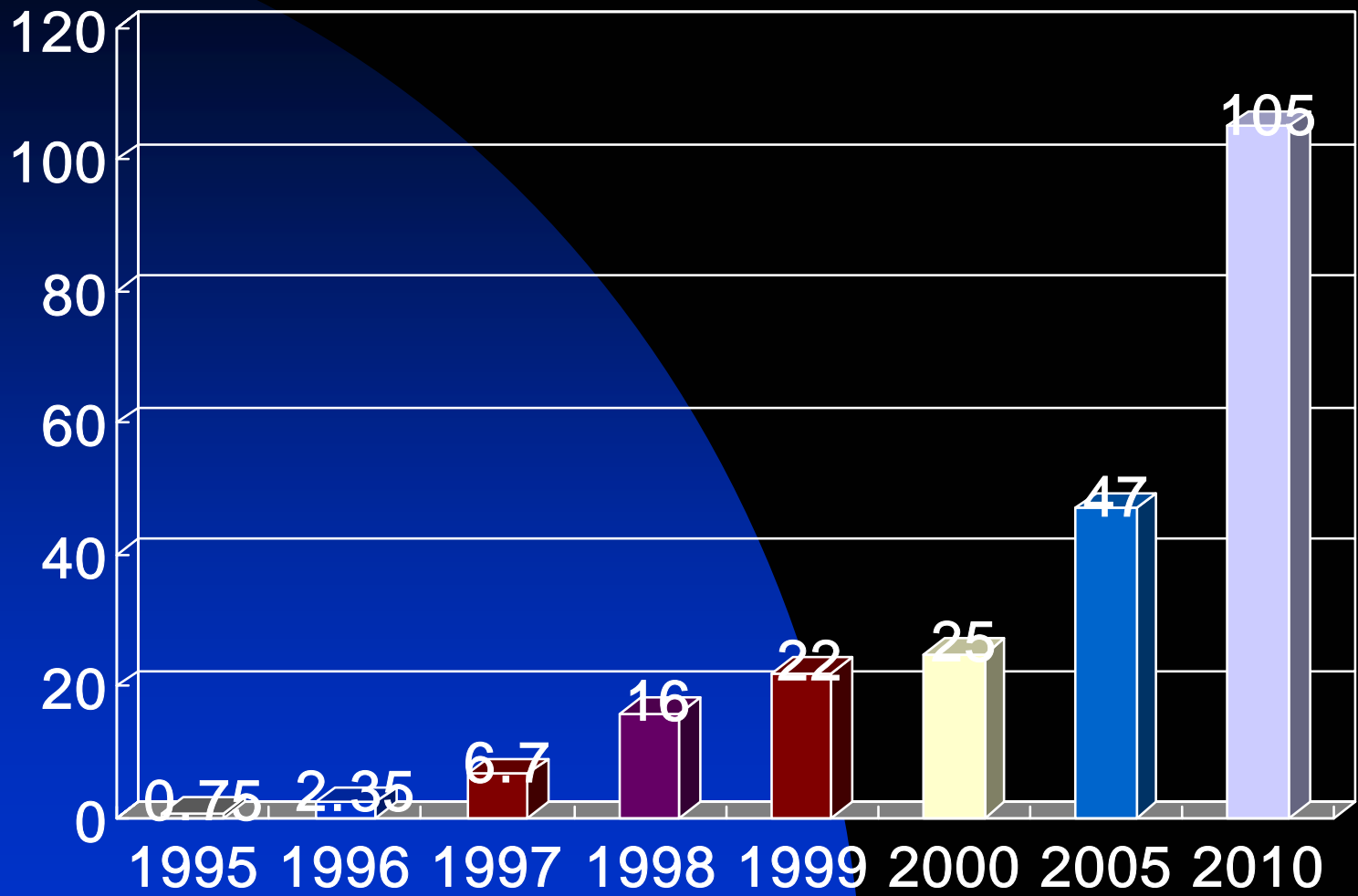
제품의 질 향상:

- 종자/과실 특성 변형
- Nutraceuticals
- 기능성 식품

산업용

작물을 생산 플랜트화:

- 외래 단백질 생산
- 다른 산업 분야 응용 (제약, 화학 등)



- : Consulting Resources(1997), ISAAA Briefs No.12(1999), Ernst & Young



		가 (,)
가		,
		,
/		(Lignin) ,
		(,),
		PHB(Polyhydroxy-butyrate)
		, , 가

효소 개발 생산

- 지질 및 단백질 분해효소
- 가수분해효소
- 산화환원효소
- 기타 특정 효소 등

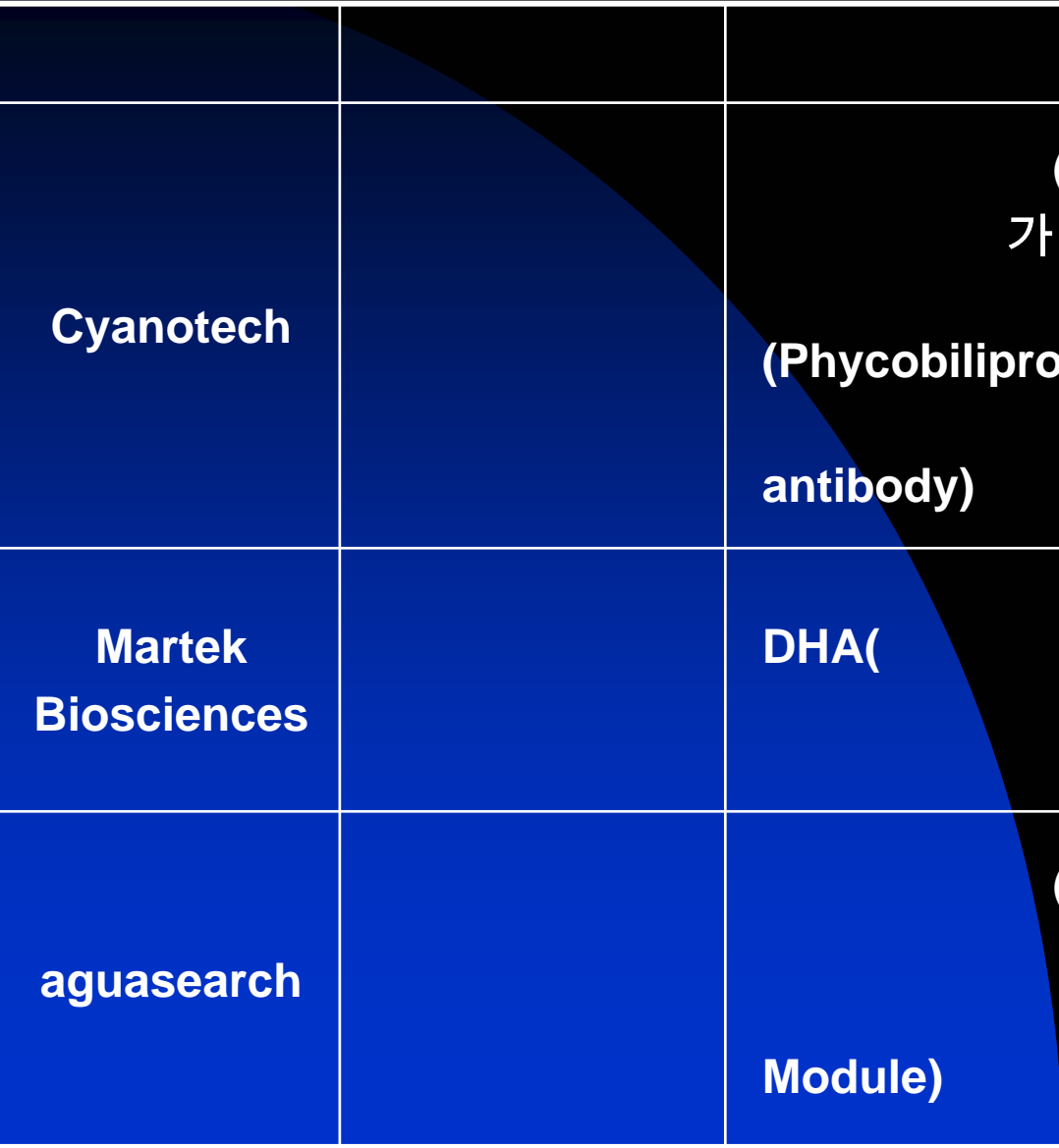
산업공정 및 제품 생산에의 응용

- 세제 산업
- 식품 및 전분 가공 산업
- 의약 및 화학 산업
- 섬유 및 펄프/종이 산업 등

- 자원 및 에너지 소모가 적은 공정 구축
- 제품기능 향상



	가 , ' ,
	,

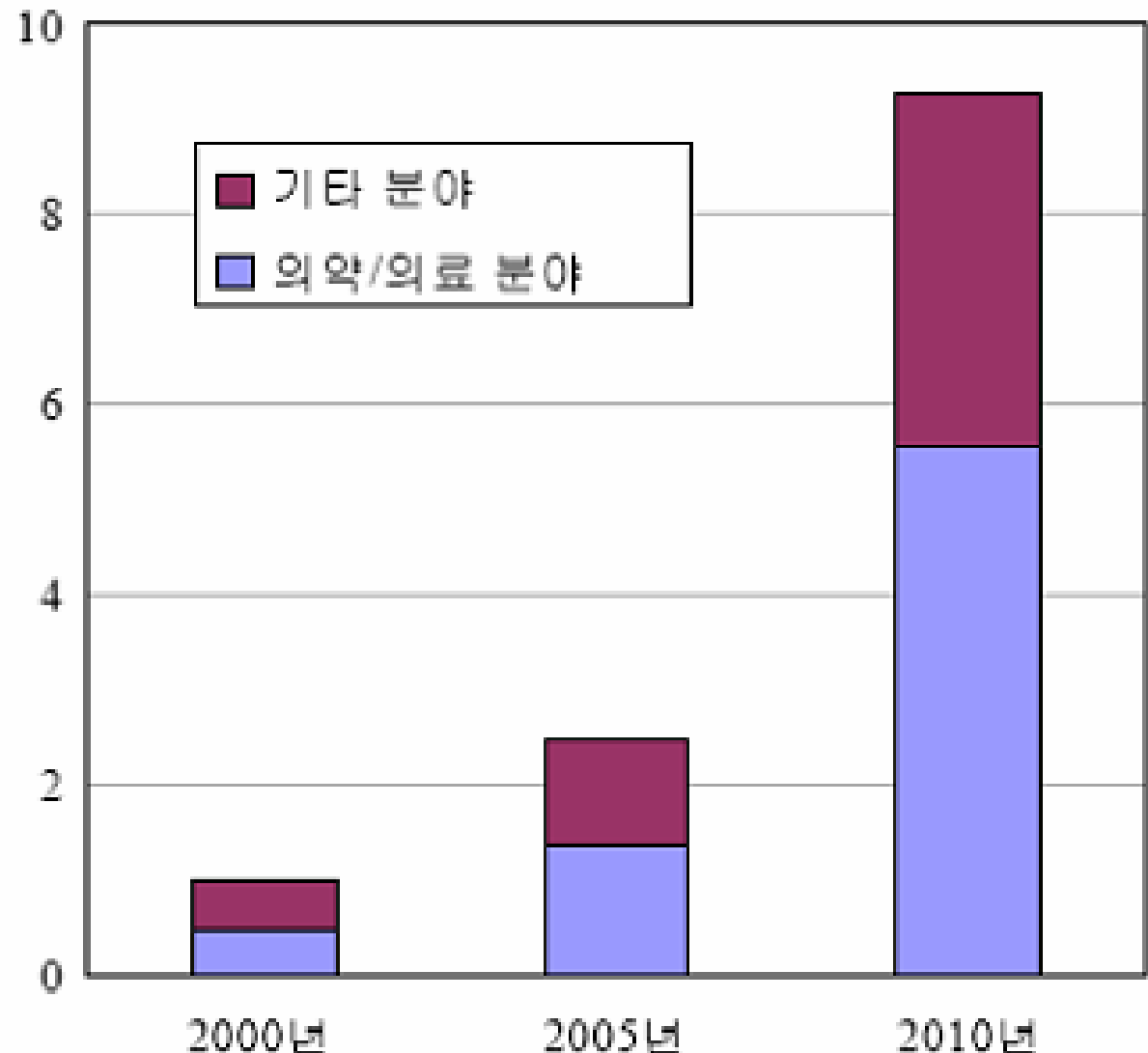


Cyanotech		(Astaxanthin, 가) (Phycobiliproteins) (Aldolase catalytic antibody)
Martek Biosciences		DHA()
aguasearch		(Astaxanthin) 2000 (AGM, Aquasearch Growth Module)



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(,)	
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/	

(조원)



The image shows a grid on a black background with a blue curved area. The grid is composed of white lines forming a table. The blue area is a quarter-circle shape starting from the top-left corner and extending towards the bottom-right. The text 'LG' is in the top-left blue area, 'B' is in the middle blue area, and there are commas in some cells on the right side of the grid.

					B
					,
LG		B			
					,

					,
		,			
		B			
					,
		,			
					B

(1)

	1997			
	1998			
	1994			
	1988			
	1997			DNA
DNA	2000			
	1999			
	1996			
	1992			DNA
	1994			
	1997			
	1998			

(2)

	1997			DNA
	1998			(ecobuysell)
	1996			
	1993			,
	1997			,
	1999			
	1996			
	1999			Kit Kit
	2000			
	1997			probe , Bioseneor DNA
	1995			
	1997			(Modified Oligonucleotide)

(3)

	1998			
	1997			,
	1997			가,
	1999			
	1997			
	1995			, 가



<p>2010</p>	<p>DNA , , , 가 , Web , 가 (Neutraceutical) : , A 가 , : E,</p>
<p>2020</p>	<p>Life-cycle : 가 가 가 : ,</p>
<p>2040</p>	<p>: 가 , , ,</p>



	2000	2010
10	AIDS	, AIDS ()
100		, , ,
10%	()	



	2000 ~ 2005	2005 ~ 2010
/	,) (, 가
		,
	가	/
	가	DNA/