In all correspondence concerning this questionnaire, please quote this four-digit reference number

Confidential when completed.

Collected under the authority of the Statistics Act, Revised Statutes of Canada, 1985, Chapter S19.

Si vous préférez ce questionnaire en français, veuillez appeler à frais virés au (613) 951-9662.

L			
Please correct name and address, if necessary			$\langle \cdot \rangle$
Purpose		•	
Statistics Canada is undertaking this survey under the of use to firms engaged in biotechnology activities b firms which choose to develop biotechnologies as an be used by businesses for market analysis, by traindustries, by government to develop national and remaking. Statistics Canada will create a database of Canada records.	y adressing the follo important componer ade associations to egional economic po	wing question: What are the main of it of their business? The information of study performance and other cha licies, and by other users involved in	naracteristics of the rom the survey can acteristics of their search or policy
Confidentiality			
While participation in this survey is voluntary, your co is as accurate and as comprehensive as possible. manner, any statistics which would divulge information the previous written consent of that business. The do used for statistical purposes and released in aggregaffected by either the Access to Information Act or an	Statistics Canada is on obtained from this ata reported on the gated form only. The	s prohibited by law from publishing of survey that relates to any identifiab survey questionnaire will be treated it	or releasing, in any le business without n strict confidence,
Biotechnology Definition Biotechnology is defined as the application of scienc organisms in their natural or modified forms in an existing processes.	e and engineering ir innovative (nanner)	the direct or indirect use of living or the production of goods and serv	ganisms or parts of ices or to improve
Please report only on Canadian biotechnology activitiengaged in biotechnology activities in Canada.	ies of your company	. Complete a separate questionnaire	for each company
Questions? If you require assistance in the completion of this que Lizotte (tel: 613-951-2188 (call collect), fax: 613-951-2188 (call collect)	estionnaire or have a 9920 or e-mail: lizollo	ny questions regarding this survey p @statcan.ca)	lease contact Lloyd
Survey Contact Please indicate the name of the person completing report.	this form so we kno	w who to contact should we have q	uestions about this
Name	Title		
Telephone Number	Fax Num	ber	
<	l l		
Combined Report			
If your records do not permit separate repoindicate whether they are engaged in biotechia.			
Name of company	Biotechnology activities YES or NO	Indicate type of affiliation with re (i.e. parent, subsidiary	
	¹ Yes		
	² No		

¹ Yes ²O No ¹ Yes $^2\bigcirc$ No ¹ Yes ²O No ¹ Yes $^2\bigcirc$ No

5-4900-40.1: 1998-03-05 STC/SAT-465-75092



Canadä

	0.	m#l··	L	F "YES" ➤ F	Principal Use <i>(ch</i>	eck one only)		IF "N	0"
Biotechnologies	Curre Used Operat	d in	ı	Products/ Processes evelopment	Clinical/ Field Trials	Current Production		Do you PLA within 3	
NA Based	~ ~	Yes	>	1	2	3			
Genetic Engineering	2()	No	>				→ ¹	O Yes	2() N
	1	Yes	>	1	2	3			
Sene Probes	2	No	>				→ ¹	O Yes	2 N
	1()	V		1()	2	3 ()			
Bio-informatics / Genomics /	~	Yes		. ()	-0		_ 1	O Yes	2 N
Pharmacogenetics	-0	No	>	_	_		> '		$\frac{2 \bigcirc N}{\triangle}$
	1	Yes	>	1 🔵	2	3			
DNA Sequencing / Synthesis / Amplification	2	No	>				→ ¹	(Ves.	/20/1
	1()	Yes		1()	2()	3 ()			\mathcal{I}
Name Theorem	- ~		_	\circ	\circ	0	$\sqrt{1}$	Oyes	\searrow_2
Gene Therapy		INO						C 163	<u> </u>
ochemistry / Immunochemistry Based		Yes	>	1	2	30/	/)	\rightarrow	
accines / Immune Stimulants / Drug Jesign & Delivery / Combinatorial Chemistry	2	No	-				ار 🖍	Yes	2() N
ooign a Donner, y Combinational Chemically				40	•				
	^	Yes	>	1()	² \	$\sqrt{3}$			0
iagnostic Tests / Antibodies	2()	No	>			$\overline{}$	→ ¹		2() N
	1	Yes	>	10 ^	, (O)) ×3			
eptide / Protein Sequencing or Synthesis	2	No	>			, -	→ ¹	O Yes	2() N
· · · · · · · · · · · · · · · · · · ·				→		20			
cell Receptors / Cell Signalling / Pheromones / Three Dimensional	~~	Yes	>		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	3			•
Molecular Modelling / Structural Biology	2()	No	>		>		→ ¹		2() N
	1	Yes (101	2	3			
iosensors	2	NO					→ 1	O Yes	2() N
103013013		(\bigcirc	· · ·					
		Yès `	>	1()	2	3			
iomaterials	-30),	No	>				→ ¹		2() N
$\mathcal{C}_{\mathcal{C}}$	1)	Yes	>	1	2	3			
ficrobiology / Virology / Microbial Esology	\sim λ	No	>				> 1	O Yes	2() N
					•	•		<u> </u>	
oprocessing Based	\sim	Yes	>	10	2	3		\bigcirc	- 0
ell / Tissue / Embryo Culture & Manipulation	2()	No	>				→ ¹		2() N
ermentation / Bioprocessing	1	Yes	>	1	2	3			
iotransformation ABioleaching / Biopulping / iobleaching / Biodesulphurization	_		-	-			→ ¹	O Yes	2 N
				10	2 (3 (
/> (\) *		Yes		1()	2()	3		O	2
xtraction / Rurification / Separation	2	No	>				→ ¹	O Yes	² () N
	1	Yes	>	1	2	3			
sioremediation / Phytoremediation / siofiltration / Bioindicators	2	No	>				→ ¹	O Yes	2 N
				1()	2()	3()			
	- ~	Yes	_		-0	J.	_ 1	O 24	20.
Natural Products Chemistry	-0	No	<u> </u>				>	O Yes	2 N
hers (Please specify)	1 🔾	Yes	>	1 🔵	2	3 🔾			
	2	No	>				→ ¹	O Yes	2 N
1				1()	2	3 ()			
I	_	Yes		.)	20	J .	. 4	\bigcirc \cdot	2 .
	2	No	>				>	O Yes	2() N
	1	Yes	>	1 🔵	2	3			
	_		-				1	O Yes	2 N

Page 2 5-4900-40.1

BIO-INDUSTRY SECTOR	
3. a) Please indicate the top 3 bio-industry sectors, where a firm's biotechnology activities, (use 1 for the Most impor- the number of products based on genetic engineering development stages:	tant and 3 for the least important). Please also indicate
Human Health - Bio	Aquaculture
 Diagnostics (e.g. immunodiagnostics, gene probes, biosensors) 	11) Fish health (e.g. diagnostics, therapeutics)
Therapeutics (e.g. vaccines, immune stimulants,	12) Broodstock genetics (e.g. tracking superior traits, genetic modification / engineering)
biopharmaceuticals, rational drug design, drug delivery, combinatorial chemistry)	Bioextraction (e.g. karageenan from seaweed, antifreeze proteins from fish, flavours)
 Gene Therapy (e.g. gene identification, gene constructs, gene delivery) 	Mining/Energy/Petroleum/Chemicals 14) Microbiologically enhanced petroleum/mineral
Bio-Informatics	recovery
 Genomics and Molecular Modelling (e.g. DNA/RNA/protein sequencing & databases for humans,plants, animals and microorganisms) 	15) (Cleaner) Industrial Bioprocessing (e.g. biodesulphurization, bio-cracking, bio-recovery) Forest Products
Aq - Bio	16) Silviculture (e.g. ectomycorrhizae, ţissue culture,
5) Plant Biotechnology (e.g. tissue culture, embryogenesis, genetic markers, genetic	somatic embryogenesis, genetic markers, genetic engineering)
engineering)	17) (Cleaner) Industrial Bioprocessing
 Animal Biotechnology (e.g. diagnostics, therapeutics, embryo transplantation, genetic markers, genetic engineering) 	(e.g. biopulping, biobleaching, biological prevention of sapstain)
7) Biofertilizers/Biopesticides/Bioherbicides/	Environment 18) Biofiltration (e.g. treatment of organic emissions to
Biological Feed Additives/Microbial pest control (e.g. bacteria, fungi, yeasts)	air/water)
8) Non-Food Applications of Agricultural Products	19) Bioremediation and Phytoremediation (e.g. cleanup of toxic waste sites using
(e.g. fuels, lubricants,commodity and fine chemical feedstocks, cosmetics)	microorganisme)
Food Processing	20) Diagnostics (e.g. detection of toxic substances using bioindicators, biosensors, immunodiagnostics)
9) Bioprocessing	Other
(e.g. using enzymes and bacteria culture)	Custom synthesis- chemical or biological
10) Functional Foods/Nutriceuticals (e.g. probiotics, unsaturated fatty acids)	(e.g. poptides, proteins, nucleotides, hormones, grewth factors, biochemicals
	22) Other (please specify)
	91
	,
	Number of products by development stages
Top Bio-sectors (1 to 3 by importance)	Approved/ Clinical/Field Under
Please write number and sub-headings from above list	On Market Trial stage development
	(number) (number) (number)
1	
2	
^ (
3	
a) Pict volument a new or cignificantly improved PPO	OFCC in the least Conserve that we envired the advantage of
of biotechnologies?	CESS in the last 3 years that required the development
of biotechnologies?	CESS in the last 3 years that required the development
of biotechnologies?	CESS in the last 3 years that required the development
of biotechnologies? Number	CESS in the last 3 years that required the development
of biotechnologies? Number 1 ○ Yes ➤ How many?	CESS in the last 3 years that required the development
of biotechnologies? Number	CESS in the last 3 years that required the development
of biotechnologies? Number 1 ○ Yes ➤ How many?	LESS in the last 3 years that required the development
of biotechnologies? Number 1 ○ Yes ➤ How many?	
of biotechnologies? Number 1 Yes ➤ How many? 2 No c) Do you PLAN to implement in the NEXT 3 years a new development of biotechnologies?	
of biotechnologies? 1 Yes ➤ How many? 2 No c) Do you PLAN to implement in the NEXT 3 years a new	
of biotechnologies? Number 1 Yes ➤ How many? 2 No c) Do you PLAN to implement in the NEXT 3 years a new development of biotechnologies?	

5-4900-40.1 Page 3

Financial Infor	mation				
4. Total Business	Activity (All ac	ctivities including	g Biotech)		
a) Is your firm a pu	ublic company?	¹ Yes			I
ı		² No			I
		e latest fiscal year a ons of your subsidi a	available. aries located outside	e Canada.	
Fiscal year (if different from	n 1997)				
Balance Sheet	1997	Revenue	1997	Expenses	1997
	2204		2006		2004
Cash & securities	000\$	Product sales	000\$	R&D	000\$
Total Assets	000\$	Contract Research	000\$	All other expenses	000\$
	2004		2006		1
Total liabilities	000\$	Other revenue	000\$	$\langle \langle \rangle$	\searrow
Shareholders Equity	000\$				>
					
TOTAL Exports (as % of product sales	s)	%	Total exports to the (as % of product sa		%
Biotechnology Related			Total exports to Eur	robe	
(as % of product sales		%	(as % of product sa	alesi	%
			Total exports to Asia (as % of product sa	a ales)	%
			Total exports to Sou	uth/Latin America	
			(as %/of product sa	iles)	%
			Total exports to other		%
Total number of emplo					
1,500		1	<u> </u>		
What percentage of your are based on biotechi	our product sales	}	% OR bio	product sales	000\$
uio sacci.	No.			product ca.s.	
What percentage of your are based on biotechy	our R&D expenses nology?		% OR bio	R&D	000\$
\wedge	>		/	-	
R&D					
5. a) Did your firm ha	ave biotech R&D e ears 1995-1997?	expenditures 1	\ \\		
ln⊾athy ∪r un c yo	818 1990-1991 :	2)Yes)No		
b) In the past 5 ye		mpany apply	110		
	nefit under the R&		Yes ➤ What was	the most recent year?	,
		2		our company not apply	y?
			` _	plexity of the applicatio	on process
			_	ertainty of eligibility	II process
				not meet eligibility requi	irements
			⁴○ other I	r (specify)	1
					I

Page 4 5-4900-40.1

			For	reign Partner, (F	lease identify	y country of partn	er)
Strategic Alliance for:		Canadian Partner	USA	E-U	Asia	South/ Latin America	Other
Marketing/Distribution	¹	1	2	3	4	5	6
Manufacturing	¹	1	2	3	4	5	6
Regulatory Affairs	¹	1	2	3	4	5 (6
Finance	¹○ Yes ➤ ²○ No	1	2	3	4	5	7
Other	¹○ Yes ➤ ²○ No	1 (2	3	40	5	6
R&D Partnership:)	
Biotech Company	¹ Yes ➤ ² No	1	2	3	4 <u> </u>	5	6
Other company	¹	1	2))	4	5 🔾	6
University	¹	10 }	2	3	4	5	6
Hospital	¹) ²	3 🔾	4	5	6
Research Institute	1 Yes 2 No	>> <u>`</u>	2	3 🔾	4	5	6
Federal Lab (Canadian)	1 Yes						
Provincial Lab (Canadian)	1 Yes 2 No						
Network of Centres of Excellence (Canadian)	¹ Yes ² No						
Human Resources enga	ged in Biotech	nnology A	Activiti	ies			
7. a) In your current biotechnological (include contract personnel	ogy activities, please and use fractions of	e give the nu a person-ye	ımber of e ar if individ	employees o duals are fill	on staff in ing more	the listed pethan one role	osition e).
Position	Num	ber Now Employ	red P	ositions Unfilled	Now	Estimated N Employed in y	
R&D							
Clinical Affairs/Quality Assurance							
Regulatory/Legal/Government Affair Manufacturing	S						
Marketing & Sales							
Business Development/Finance							
			1				

Strategic Partnerships

Administration/Human Resources

5-4900-40.1 Page 5

Human Resources engaged in Biotechnology Activities (continued)
7. b) Does your firm have a formal employee development program (continuing education and training program)?
1 Yes ➤ If yes, estimate your firm's total expenditures on formal education and training in 1997? (\$000) or as a percentage of product sales S000 OR %
c) Does your firm employ co-op program students from universities?
¹ Yes
² No
d) Do you have a full time person solely responsible for Human Resources in your organization?
¹○ Yes
² No
e) What is your approximate professional staff turnover rate (persons leaving as a % of total staff) for the biotechnology activity in 1997?
%
70
f) Are you experiencing problems in recruiting Business Operations staff?
¹ Yes ➤ If YES. In which specialties? ¹ Finance
2 No 2 Marketing 3 Regulation Local
³ ☐ Regulatory, Legal _⁴ ☐ Clinical Affairs
g) Are you experiencing problems in recruiting Technical / Production / Scientific / R&D staff?
¹ Yes ➤ If YES. In which specialities? ¹ Scientist
² O No ² O Engineering
³ Technicians
h) Have you tried to hire personnel from outside Canada in 1997?
¹○ Yes 2○ No
If (Yes, From which areas?
/ bus
² O EU
Asia
 South/Latin America Other
▼ Other
If Yes, were you successful?
¹ Yes ² No ► If No, Was the problem related
to the following issues?
 Personal income taxes Immigration Rules
³ Advancement opportunities
⁴ Other

Page 6 5-4900-40.1

Intellectual property (IP) instrum	ents		
8. a) Have you ever had to abandon an important biotech project because further work was blocked by IP rights held by another organization?	of pat	this an issue of scope tent in Canada as ared to other countries? 1 Yes 2 No	
b) Has your firm been involved in litigation related to patent infringement in the past year?	¹○ Yes ➤ How	many different cases?	
c) During the last three years has your firm assigned the right to use intellectual property TO : (check where applicable)	Another firm	In Canada Outside Canada	
	Government lab	3 4)
	University	50	
	Hospital	7 0	
	<u>.</u>		
 d) During the last three years has your firm acquired the right to use intellectual property FROM: 	Another firm 🔷.	In Canada Outside Canada	
(check where applicable)		3 4	
	Government lab	> ⁻	
	University	5 6	
	Hospital	7 8	
9. Select the three issues that you consider a biotechnology products/processes: O1	are the most important		your
11	regulatory approval		
Time required to	gain regulatory approv	val	
Other (please specify)			

5-4900-40.1 Page 7

Refocused current product development Downsized the organization Os O	inancing					
For what purposes? (check most important) R&D R&D R&D	a) Did you raise capital in 1997 fo	or biotechno	logy?	b) Are you planning to raise ca	oital in 1998?	
For what purposes? (check most important) 1 R&D 2 Regulatory approvals 3 Process Scaleup 4 Other Sources? (check most important) 1 Friends / "Angel Investors" 2 Venture Capital / Labour Sponsored Funds 3 Private Placement 4 IPO (Initial Public Offering) 5 Secondary Public Offering 6 Strategic Alliance Partner 7 Other Strategic Decisions The CEO, what were the most important decisions you nake ever last year (1997)? For this year (1998)? Check up to three for each year) Downsized the organization Increased the size of the organization Acquired a company 10 Secondary Public Offering 1997 1998 Acquired a company 10 Alliances with academia 21 22 Alliances with companies 28 Alliances with companies 29 Alliances with companies 20 Venture Capital / Labour Sponsored Funds 3 Private Placement 4 IPO (Initial Public Offering) 5 Secondary Public Offering 6 Strategic Alliance Partner 7 Other Strategic Decisions The following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you nake every last year (1997)? For this year (1998)? Check up to three for each year) 1997 1998 Relocused current product development 1997 1998 Licenced out technology 10 20 Alliances with companies 26 28 Alliances with companies 27 26 Alliances with companies 28 28 Alliances with companies 29 30 Alliances with companies 20 20 Alliances with companies 21 22 Alliances with companies 25 26 Alliances with companies 26 26 Alliances with companies 27 26 Alliances with companies 28 28 Alliances with companies 29 30 Alliances with companies 20 20 Alliances with companies 20 20 Alliances with companies 21 22 22 23 24 24 25 26 26 27 28 29 20 20 20 20 20 20 20 20 20	¹○ Yes ➤ How Much?		000\$	¹○ Yes ➤ How Much?		000\$
(check most important) R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D R&D Regulatory approvals Process Scaleup Other Sources? (check most important) Friends / *Angel Investors* Venture Capital / Labour Sponsored Funds Private Placement IPO (Initial Public Offering Strategic Alliance Partner Other Strategic Decisions Refocused current product development Downsized the organization Downsized the organization Downsized the organization Acquired a company Acquired a company 11 12 Acquired a company 13 14 Acquired a company 15 16 Rab Rab Regulatory approvals Process Scaleup Other Sources? (check most important) Check most important) Friends / *Angel Investors* Check most important) Friends / *Angel Investors* Private Placement IPO (Initial Public Offering Strategic Alliance Partner Other Other Sources? (check most important) Friends / *Angel Investors* Private Placement IPO (Initial Public Offering Secondary Public Offering Secondary Public Offering Strategic Alliance Partner Other Other Other Sources? (check most important) Friends / *Angel Investors* Private Placement IPO (Initial Public Offering Secondary Public Offering Secondary Public Offering Strategic Alliance Partner Other Other Other Private Placement IPO (Initial Public Offering Strategic Alliance Partner IPO (Initial Public Offering Secondary Public Offe	² No			² No		
R&D						
Regulatory approvals Process Scaleup	, ,			, ,		
3 Process Scaleup 4 Other Sources? (check most important) 1 Friends / "Angel Investors" 2 Venture Capital / Labour Sponsored Funds 3 Private Placement 4 IPO (Initial Public Offering) 5 Secondary Public Offering 6 Strategic Alliance Partner 7 Other Strategic Decisions The following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you make over last year (1997)? For this year (1998)? (check up to three for each year) Downsized the organization Increased the size of the organization Os O	O Mas			0		
Sources? (check most important) 1 Friends / 'Angel Investors' 2 Venture Capital / Labour Sponsored Funds 3 Private Placement 4 IPO (Initial Public Offering) 5 Secondary Public Offering 6 Strategic Alliance Partner 7 Other Strategic Decisions he following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you make eyer last year (1997)? For this year (1998)? (check up to three for each year) Downsized the organization Increased the size of the organization Downsized the organization Acquired a company 11 12 Raised private capital Alliances with companies Alliances with companies 26 26 26 26 26 26 26 26 26 26 26 26 26 2	0 7 11					
(check most important) Friends / "Angel Investors" Friends / "Angel Investors" Friends / "Angel Investors"						
Friends / *Angel Investors*					^	\
2 Venture Capital / Labour Sponsored Funds 3 Private Placement 4 IPO (Initial Public Offering) 5 Secondary Public Offering 6 Strategic Alliance Partner 7 Other Strategic Decisions he following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you make over last year (1997)? For this year (1998)? (check up to three for each year) 1997 1998 Refocused current product development 100		·e"		, ,	ore"	7/
3 Private Placement 4 IPO (Initial Public Offering) 5 Secondary Public Offering 6 Strategic Alliance Partner 7 Other Strategic Decisions The following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you made over last year (1997)? For this year (1998)? (check up to three for each year) Refocused current product development Downsized the organization Downsized the organization Downsized the size of the organization Entered product trials Or OB Alliances with government Alliances with companies Ze (Alliances with companies Ze (Alliances with companies) Alliances with companies Ze (Alliances with companies) Alliances with companies Ze (Alliances with companies) Ze (Alliances with government) Ze (Alliances with government) Ze (Alliances with government) Ze (Alliances with companies) Ze (Alliances with government) Ze (Alliances with government) Ze (Alliances with government) Ze (Alliances with companies) Ze (Alliances with government) Ze (Alliances with government) Ze (Alliances with companies) Ze (Alliances with government) Ze	O		Funds	O mondo, mago miros		nds
4 IPO (Initial Public Offering) 5 Secondary Public Offering) 6 Strategic Alliance Partner 7 Other 1 O	_	Оролоогоа	. undo			
5 Secondary Public Offering 6 Strategic Alliance Partner 7 Other 7 Oth		ıa)			na)	
6 Strategic Alliance Partner 7 Other 8 Other 9 Other	,	0,			/-/ ~	
he following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you made eyer last year (1997)? For this year (1998)? (check up to three for each year) Refocused current product development Downsized the organization Downsized the organization Downsized the size of the organization Increased the size of the organization Alliances with academia Alliances with government Alliances with companies Entered product trials Or Os Alliances with companies Raised private capital Raised public capital Raised \$ from alliance Strategic Decisions Alliances with academia 21 22 26 26 26 26 26 26 26 26 26 26 26 26		-		_ '	- 7	
The following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you make over last year (1997)? For this year (1998)? (check up to three for each year) 1997 1998 1997 19 Refocused current product development 10 03 04 Alliances with academia 21 22 1 Increased the organization 03 04 Alliances with government 23 24 1 Entered product trials 07 08 Alliances with companies 25 26 1 Launched new product 09 10 Raised private capital 27 28 1 Acquired a company 13 14 Raised public capital 29 30 1 Acquired to others 15 16 Raised \$ from alliance 31 32 1 Licenced in technology 17 18 Borrowed \$ 35 36 1 Other (please specify) 37 38 1	⁷ Other			⁷ Other √		
The following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you make over last year (1997)? For this year (1998)? (check up to three for each year) 1997 1998 1997 19 Refocused current product development 10 03 04 Alliances with academia 21 22 1 Increased the organization 03 04 Alliances with government 23 24 1 Entered product trials 07 08 Alliances with companies 25 26 1 Launched new product 09 10 Raised private capital 27 28 1 Acquired a company 13 14 Raised public capital 29 30 1 Acquired to others 15 16 Raised \$ from alliance 31 32 1 Licenced in technology 17 18 Borrowed \$ 35 36 1 Other (please specify) 37 38 1						
The following question should be answered by the CEO of your company. 1. As the CEO, what were the most important decisions you make over last year (1997)? For this year (1998)? (check up to three for each year) 1997 1998 Refocused current product development 100 100 Alliances with academia 210 220 Alliances with academia 210 220 Alliances with government 230 240 Alliances with companies 250 260 Acquired a company 110 120 Acquired a company 130 140 Acquired by a company 150 160 Raised private capital 270 280 Raised private capital 290 300 Acquired by a company 130 140 Raised \$ from alliance 310 320 Cher (please specify) 370 380						
Refocused current product development Downsized the organization One of the organization One	ne following question should be			\sim \sim \sim	- this (400)	2).0
Increased the size of the organization 05 06 Alliances with academia 23 24 (Entered product trials 07 08 Alliances with companies 25 26 (Launched new product 09 10 Raised private capital 27 28 (Acquired a company 11 12 Raised public capital 29 30 (Acquired by a company 15 16 Raised \$ from alliance 31 32 (Raised \$ from sales 33 34 (Controlled to others 15 16 Borrowed \$ Cother (please specify) 37 38 (Other (please specify) 37 38 (Other (please specify) 37 38 (ne following question should be . As the CEO, what were the most	important d	lecisions y	\sim \sim \sim		
Entered product trials O7	ne following question should be . As the CEO, what were the most (check up to three for each year) Refocused current product	important d	lecisions y	ou made over last year (1997)? Fo	1997	19
Launched new product O9 10 Raised private capital Acquired a company 11 12 Raised public capital Paised \$ from alliance Raised \$ from sales Licenced in technology 17 18 Borrowed \$ Other (please specify) Other (please specify)	ne following question should be . As the CEO, what were the most (check up to three for each year) Refocused current product development	1997 01	lecisions y	ou made over last year (1997)? Fo	1997	<u>19</u>
Acquired a company 11 12 Raised public capital 29 30 (Acquired by a company 13 14 Raised \$ from alliance 15 16 Raised \$ from sales 29 30 (Raised \$ from alliance 31 32 (Raised \$ from sales 33 34 (Other (please specify) 37 38 (ne following question should be . As the CEO, what were the most (check up to three for each year) Refocused current product development Downsized the organization	1997 01 03	lecisions y	Licenced out technology Alliances with academia	1997	<u>19</u> 20 (
Acquired by a company 13	ne following question should be As the CEO, what were the most (check up to three for each year) Refocused current product development Downsized the organization Increased the size of the organization	1997 01 03	1998 02 06	Licenced out technology Alliances with academia Alliances with government	1997 19 21 23 23 23 23 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	20 (22 (24 (
Outsourced to others 15 16 Raised \$ from sales Solve the sales Raised \$ from sales R	ne following question should be As the CEO, what were the most (check up to three for each year) Refocused current product development Downsized the organization Increased the size of the organization Entered product trials	1997 01 03 00 00 07	1998 02 06 08	Licenced out technology Alliances with academia Alliances with government Alliances with companies	1997 19 21 23 25 25 0	20 (22 (24 (26 (
Licenced in technology 17 18 Borrowed \$ Other (please specify) 37 38 (19)	Refocused current product development Downsized the organization Entered product trials Launched new product	1997 01 03 03 00 05 09	1998 04 06 08	Licenced out technology Alliances with academia Alliances with government Alliances with companies Raised private capital	1997 19 21 23 25 27 27 27	22 (24 (26 (
Other (please specify)	Refocused current product development Downsized the organization Increased the size of the organization Entered product trials Launched new product Acquired a company	1997 01 03 03 07 09	1998 04 06 08 10	Licenced out technology Alliances with academia Alliances with government Alliances with companies Raised private capital Raised public capital	21 23 25 27 29 0	20 (c) 22 (c) 24 (c) 26 (c) 30 (c) 30 (c)
37 38 (Refocused current product development Downsized the organization Increased the size of the organization Entered product trials Launched new product Acquired by a company	1997 01 03 07 09 11	06 08 01 12 01 14 01 01 14 01 01 14 01 01 01 01 01 01 01 01 01 01 01 01 01	Licenced out technology Alliances with academia Alliances with government Alliances with companies Raised private capital Raised \$ from alliance	21	29 (24 (26 (30 (32 (32 (32 (32 (32 (32 (32 (32 (32 (32
Comments	Refocused current product development Downsized the organization Increased the size of the organization Entered product trials Launched new product Acquired a company Outsourced to others	1997 01 03 03 00 05 00 09 01 11	1998 04 06 08 10 12 14	Licenced out technology Alliances with academia Alliances with government Alliances with companies Raised private capital Raised \$ from alliance Raised \$ from sales	21	22 (24 (26 (33 (33 (4 (33 (4 (34 (34 (34 (4 (34 (3
Comments	Refocused current product development Downsized the organization Increased the size of the organization Entered product trials Launched new product Acquired a company Outsourced to others	1997 01 03 03 00 05 00 09 01 11	1998 04 06 08 10 12 14	Licenced out technology Alliances with academia Alliances with government Alliances with companies Raised private capital Raised \$ from alliance Raised \$ from sales Borrowed \$	1997 19 0 21 0 23 0 25 0 27 0 29 0 31 0 35 0	20 (22 (24 (
	Refocused current product development Downsized the organization Increased the size of the organization Entered product trials Launched new product Acquired a company Outsourced to others	1997 01 03 03 05 05 09 11 13	1998 04 06 08 10 12 14	Licenced out technology Alliances with academia Alliances with government Alliances with companies Raised private capital Raised \$ from alliance Raised \$ from sales Borrowed \$	1997 19 0 21 0 23 0 25 0 27 0 29 0 31 0 35 0	29 (24 (24 (25 (25 (25 (25 (25 (25 (25 (25 (25 (25

Comments