SURVEY OF WORKPLACE HEALTH AND GENETIC SCREENING AND MONITORING

CORPORATE HEALTH OFFICER VERSION

The Congressional Office of Technology Assessment is conducting a national survey of the opinions and experiences of employers related to the usc of genetic screening and monitoring in the workplace. This questionnaire has been directed to you as the person in your organization whose responsibilities include employee health. We need your assistance in answering, as best you can, some questions about workplace testing and employee health in your company.

For the purposes of this survey and the subsequent report, OTA has adopted the following definitions. By <u>genetic monitoring</u> we mean periodically examining employees to evaluate modifications of their genetic material via tests such as cytogenetic or direct-DNA tests. By <u>genetic screening</u> we mean screening job applicants or employees for certain inherited characteristics. Screening tests may be biochemical tests or direct-DNA tests. They can be used to indicate a predisposition to an occupational illness if exposed to a specific environmental agent, or they could be used to detect any inherited characteristic such as Huntington's disease. In contrast to periodic monitoring screening tests are generally performed only one time per characteristic.

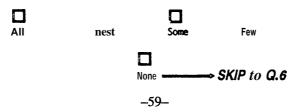
This is an important study, which has been requested by the Congress of the United States, designed to represent the opinion and experience of the employer. We need to know how employers view the technologies of genetic screening and monitoring in terms of their current and future applications to the workplace. We also want to know how these technologies arc seen in the broader context of more common forms of employee health screening and monitoring in the workplace.

Your responses are very important, regardless of whether you have had any experience with genetic screening or monitoring. If your company has never explored the technology, the questionnaire will only take ten minutes. If you have some experience with the technology, it may take a little longer to complete the questionnaire. In either case, your experiences and opinions will help to inform congressional, opinion about this area.

Please read each question and mark the box(es) that most nearly corresponds to your answer. After each answer continue with the next question unless there is an instruction to skip to a particular question. Please feel free to qualify your answers if you feel it is necessary. Space has been provided at the end for comments and opinions that you feel arc not adequately represented by the survey questions.

You arc free to decline to answer any questions that you consider inappropriate. The questionnaire and any identifying information will be destroyed after data entry, so that all responses will be anonymous as well as confidential.

L In your company, are pm-employment health examinations required of all, most, some, few, or no job applicants?



2. Would your company consider it acceptable or unacceptable to conduct a pre-employment health examination in order to:

	ACCEPTABLE	UNACCEPTABLE
Identify job applicants who are physically unfit for employment	ü	ប
Identify job applicants who are emotionally or psychologically unstable.	..	
Identify job applicants who are currently using drugs	<u>.</u>	
Identify job applicants who are at Increased risk to workplace hazards	D	
Identify job applicants with genetic susceptibility to workplace expos	ures	
Identify job applicants who represent high insurance risks	= 🗅	

3. Which of the following are normally part of the pre-employment m i n a t i o n in your company for non-administrative position? (MARK ALL APPLY)

Personal medical history	n
Family medical history	_D
Simple physical examinations	
Standard blood chemistry tests	
EKG	_

Chest X-ray	ĻĻ
Pulmonary f unction test	
Eye and hearing exam	
Urinalysis for drug use	
Lower back X-ray	

4. Which of the following types of results of pre-employment examinations would normally be released to job applicants?

Normal results (negative findings).0, •00
Positive findings already indicated in medical history
Positive findings not reflected in medicall history
Positive findings which disqualify them for employment. \ldots \ldots \ldots \Box
Positive findings which affect position/site eligibility 1
All of the above
None

S. How would that information normally be released to job applicants?

Letter	Consultation with medical staff	Both	Other

6. Are there any specific medical criteria, other than those mandated by regulation, that would exclude individuals from eligibility for certain positions, jobs or sites in your company (e.g., hypersensitivity to dust or platinum, pregnancy)?

	U Yes	N	0	SKIP TO Q.7
6a. Which medical criteria	would exclude en	nployment i	n which	1 jobs?
Medical Criteria		Excluded	Positio	n/Job/Site
1				
2.				
3				
7. Are any employees in your con	pany exposed to	chemicals of	or ionizi	ing radiation in the workplace setting?
	Yes	Ν	0	SKIP TO Q.8
7a. Are those employees v prolonged exposure?	vho are exposed	to chemica	als or io	onizing radiation routinely rotated to avoid
	Yes		No	
7b. Does your company co them to environmental				illance of employees whose job may expose puired by OSHA?
	Yes		No	
8. Are any employees in your con of negative health outcome,				place condition where there is a greater risk ibilities?
	Yes	Н	0	SKIP TO Q.9
8a. Do you conduct <u>any fo</u> these jobs?	orm of screening	to identify	employ	yees or job applicants at increased risk for
	Yes		N	0 SKIP TO Q.9
8b. Which, if any, of the fe ceptibility to workplace		f screening	are con	nducted to identify increased individual sus-
Medical History	Non-genetic s (e.g., lower allergy tes	back X-ray,		tic screening None

9a. As part of ongoing worker health ● valuation does the company require, as a condition of continued employment all employees, only those in certain plants or jobs, only employees with certain medical conditions or histories, or no employees to have

	9	9b. Which of these tests (in Q.9a-g), if any, do you offer to employees on ● voluntary basis as part of a corporate wellness program?					
					•	1	
		Q. 9 L PLANTS/ JOBS	a REQUIRI CONDITION HISTORIE	IS/	O.9 OFFER V YES	9b OLUNTARY NO	
	▲						
a. Ro	utine physical examination			0			
b. Te	st for hypersensitivity	n 1		n			
с. Не	aring tests] n		0			
	Imonary function tests 🔐 🖵	n I		IR			
	ion tests	n 1		ci			
_	est X-rays	n 1		n		0	
	ood chemistry tests	ם נ		0		n	

10Would your company consider the use of genetic screening or monitoring of employees or job applicants as generally acceptable or generally unacceptable to:

	GENERALLY ACCEPTABLE	GENERALLY UNACCEPTABLE
Make a clinical diagnosis of a sick employee		
Establish links between genetic predisposition and workplace hazards	□	
Inform employees of their increased susceptibility to workplace hazards	🖸	
Exclude employees with increased susceptibility from risk situations		
Monitor chromosomal changes associated with workplace exposures	🗅	
Establish evidence of pre-employment health status for liability purposes		

11. Does your company have a formal policy related to the use of genetic tests in the screening of job applicants or employees?

Yes	No

12. Does your company have a formal policy related to the use of genetic tests in the monitoring of employee health?

Yes	No

The following questions concern biochemical genetic screening and/or cytogenetic monitoring that may have been conducted by your company on one or more employees or job applicants. By conduct we mean perform, contract for, or arrange for the test as part of a routine or ongoing program.

13. Is your company currently corresearch or any other reason		ical genetic screen	<u>ing</u> of any empl	oyees or job ap	oplicants, for
·	Yes	No	D Not Sure		
14. Has your company conducte research or any other reason	d any b <u>iochemical</u> 1 in the past 19 yea	<u>genetic</u> screenin; rs?	<u>g of any employ</u>	ees or job ap	plicants, for
	T Yes	No ·	l Not Sure		
I5. Is your company currently of search or any other reason?	conducting <u>cytoger</u>	<u>netic monitoring</u> o	ofany employees	or job applic	ants, for re-
	Yes	No No	☐ Not sure		
16. Has your company conducted an or any other reason in the p		<u>toring of a</u> ny em	ployees or job	applicants, f	or research
	Yes	No No	D Not sure		
17. 1s your company currently search or any other reason?	conducting <u>direct-</u>	<u>DNA screening</u>	or any <i>employee</i> :	s or job applic	cants, for re-
	Yes	No	Not sure		
18. Is your company currently research or any other reason		t-DNA monitorir	ng of any emplo	yees or job ap	plicants, for
	Yes	No	Not Sure		
19. Has your company conduc tary wellness program, at the n	Yes ted any of the fo	llowing tests, eith	ner currently of		
19. Has your company conduc	Yes ted any of the fo	llowing tests, eith	ner currently of		
19. Has your company conduc	Yes eted any of the fo request of an empl Currently	llowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	ner currently of losis? (MARK A CYFOGENETIC	LL THAT AF	PPLY) DIRECT-ONA
 19. Has your company conduction tary wellness program, at the part of a voluntary 	Yes eted any of the for request of an empl Currently past 19 years. *	Ilowing tests, eith loyee, or for diagn JIOCHEMICAL GENETIC SCREENING	ner currently of losis? (MARK A CYFOGENETIC	LL THAT AF	PPLY) DIRECT-ONA
 19. Has your company conduction tary wellness program, at the part of a voluntary 	Yes ted any of the fore request of an empl Currently past 19 years. * No	Ilowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	ner currently of losis? (MARK A CYFOGENETIC	LL THAT AF	PPLY) DIRECT-ONA
 19. Has your company conduction tary wellness program, at the part of a voluntary 	Yes eted any of the for request of an empl Currently past 19 years. *	Ilowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	ner currently of losis? (MARK A CYFOGENETIC	LL THAT AF	PPLY) DIRECT-BNA MONITORING
 19. Has your company conductory wellness program, at the part of a voluntary wellness program: b. At the request of the 	Yes Yes ted any of the forequest of an employ Currently past 19 years. * No Not sure	Ilowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	ner currently of losis? (MARK A CYFOGENETIC	LL THAT AF	PPLY)
 19. Has your company conductory wellness program, at the part of a voluntary wellness program: b. At the request of the 	Yes ted any of the for request of an employ Currently past 19 years. * No Not sure Currently In past 19 years No**	Ilowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	er currently of losis? (MARK A CYFOGENEFIC MONITORING	LL THAT AF	PPLY)
 19. Has your company conductary wellness program, at the normalized stary wellness program. a. As part of a voluntary wellness program: b. At the request of the employee: 	Yes Yes ted any of the for request of an employ Currently past 19 years. * No Not sure No Not sure Not sure	Ilowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	er currently of losis? (MARK A CYTOGENETIC AONITORING	LL THAT AF	PPLY)
 19. Has your company conductory wellness program, at the part of a voluntary wellness program: b. At the request of the 	Yes ted any of the for request of an employ Currently past 19 years. * No Not sure Currently In past 19 years No**	Ilowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	er currently on losis? (MARK A CYTOGENETIC HONITORING	LL THAT AF	PPLY)
 19. Has your company conductary wellness program, at the normalized stary wellness program. a. As part of a voluntary wellness program: b. At the request of the employee: 	Yes ted any of the for request of an empl Currently past 19 years. * No Not sure In past 19 years No** Not sure Not sure Currently	Ilowing tests, eith loyee, or for diagn BIOCHEMICAL GENETIC SCREENING	er currently of losis? (MARK A CYFOGENEFIC MONITORING		

IF YOUR COMPANY HAS NEVER DONE BIOCHEMICAL GENETIC SCREENING, CYTOGENETIC MONITORING, DIRECT-DNA SCREENING, OR DIRECT-DNA MONITORING, SKIP TO QUESTION 28 ON PAGE 8

IF YOUR COMPANY HAS DONE CYTOGENETIC MONITORING, DIRECT-DNA SCREENING, OR DIRECT-DNA MONITORING OF EMPLOYEES, FOR ANY PURPOSE, BUT NOT BIOCHEMICAL GENETIC SCREENING, SKIP TO QUESTION 21 ON PAGE 7

IF YOUR COMPANY HAS EVER DONE BIOCHEMICAL GENETIC SCREENING OF ANY EMPLOYEE, FOR ANY PURPOSE, PLEASE CONTINUE WITH QUESTION 20

20. Which of the following types of biochemical screening tests are being conducted by your company of any employees or job applicants? (MARK ALL THAT APPLY)

FOR EACH TEST CONDUCTED, MARK(WHETHER THE TESTING IS BEING DONE ON A ROUTINE BASIS FOR HEALTH SURVEILLANCE. AS PART OF A VOLUNTARY RESEARCH PROGRAM. AS PART OF FOLLW-UP DIAGNOSIS, OR AS PART OF A VOLUNTARY WELLNESS PROGRAM, OR ONLY AI THE REQUEST OF AN EMPLOYEE

NOT DONE	ROUTINE HEALTH SURVEILLANCE	VOLUNTARY FOLLOW-UP	FOLLOW-UP DIAGNOSIS	VOLUNTA WELLNESS PROGRAM	RY AT EMPLOYEE REQUEST
Sickle cell trait					
Glucose-6-phosphate dehydrogenase def iclency (G-6-PO)*.****					
Methemaglobin reductase deficiency					
Serum alpha-1 -antitrypsin deficiency					
Alpha and beta thaiassedas 1					
Aryl hydrocarbon hydroxylase inducibility (AHH) 1					c1
Slow vs. fast acetylation					
Allergic respiratory disease					
Contact dermatitis 1					
Histocompatibility markers (HLA)					
Other immune system markers 1					
Bloom syndrome	13				
Fanconi syndrome					
Ataxia-telangiectas •• 1					
Xeroderma pigmentosum					
Other heterozygous chromosomal					

21, Which of the following *types* of cytogenetic monitoring are being conducted by your company of any employees? (MARK ALL THAT APPLY)

FOR EACH TEST CONDUCTED, MARK WHETHER THE TESTING IS BEING ON A ROUTINE BASIS FOR HEALTH SURVEILLANCE, AS PART OF A VOLUNTARY RESEARCH PROGRAM. AS PART OF FOLLOW-UP DIAGNOSIS, AS PART OF A VOLUNTARY WELLNESS PROGRAM, OR ONLY AT THE REQUEST OF AN EMPLOYEE

NOT DONE	ROUTINE HEALTH SURVEILLANCE	VOLUNTARY RESEARCH PROGRAM	Followup Diagnosis	VOLUNTARY WELLNESS PROGRAM	EMPLOYEE REQUEST
Chromsomal aberrations					
Other (SPECIFY)					

22. Has genetic screening or monitoring ever been done in your company based on:

YES	No
Family history.00.	
Gender00	
Ethnic or racial background	
Co-factors (e.g., smoking)	
Job exposures	

23. &e all employees routinely informed of abnormal (positive) findings, normal (negative) findings, both or neither from genetic screening and monitoring tests?

Abnormal (positive)	
Normal (negative)	
Both00	
Neither	1

24. Is counseling offered to all employees with abnormal (positive) genetic test results by the company or are they referred to their own physicians?

Company counseling	.	
Referred to own physicians		

25. Does your company employ or contract with a genetic counselor?

	13	
Employ	Contract with	Neither

26. Has an employee ever been referred for genetic counseling by your company's medical staff as a result of any medical or genetic testing?



27. As a result of a genetic screening or monitoring program. has your company ever.-?

YI	ES M	NO
Suggested an employee seek job elsewhere		
Placed an employee or transferred an employee to a different job in the many	ו ב	
Implemented engineering control	ו ר	
Recommended personal protection devices		
Implemented a research program		
Discontinued a product or changed materials In a product * * * ****.**.* . ****	ב	13

28. Has your company ever instituted or changed a workplace practice or exposure level due to the results of:

YES	No
Genetic monitoring in your own establishment(s)	1
Other non-genetic medical monitoring in your own establishment(S)	1
Genetic monitoring in another company's establishment s	
Other non-genetic medical monitoring in another company's establishments	
Information published by federal agencies, including NIOSH and OSHA	

29. In the past 10 years has your company chosen not to use genetic screening or monitoring due to the remits of:

	YES	NO
Genetic	monitoring in your own establishment(s)	
Genetic	monitoring in another company's establishments \ldots	
Genetic	screening In your own establishment(s)	
Genetic	screening in another company's establishments 1	

30a.	Which office determin	es whether or n	ot a specific test	will be conducted	as part of	pre-employment
	screening?					

30b. Which office determines whether or not a specific test will be conducted as part of <u>employee health surveillance</u>?

	PRE-EMPLOYMENT SCREENING	1 Employee health Surveillance
Corporate personnel	• 1	1
Corporate health	0	
Location personnel	: 1	
Location health		
Other (SPECIFY)		
	.	

31. 31. Is your company currently considering conducting <u>direct-DNA screening</u> of employees or job applicants for any reason?

	Yes	No	Not Sure
32. Is your company currently for any reason?	considering conduct	ing <u>direct-DNA n</u>	nonitoring of employees or job applicants
	Yes	No	Not Sure
33. Does your company anticipa years?	ate conducting any <u>b</u>	iochemical genet	ic screening for any Hen, in the next five
	Yes	No	Not Sure
34. Does your company antic years?	ipate conducting a	n <u>y</u> cytogenetic me	onitoring for any reason, in the next five
	Yes	No	Not sure

35. Does your company anticipate conducting any direct-DNA screening for any reason, in the next five years?

Yes No Not Sure

36. Does your company	anticipate conducting any	y direct-DNA monitoring	for any reason,	in the next five
years?				

		Yes	No	Not Sure		
37. Which	a office/division within	the company is/wil	l be responsible fo	r administering geneti	c tests?	
38. Which	n position/office within	1 the company is/wi	ll be responsible fo	or interpreting genetic	test results?	
39. Which office in your company is responsible for employee health records?						
	cal/Occupational health .					
	(SPECIFY)					

40. Does your company permit access to employee medical records -- at company discretion, with employee permission, or both, to:

	AT COMPANY DISCRETION	EMPLOYEE PERMISSION	BOTH
Personnel department Health Insurance carriers Life Insurance carriers	ם		
Disability insurance carriers Unions	. • 1 D		
Employee. Employee's spouse	□		

GENERAL ATTITUDES

41. How do you feel about the following general statements concerning genetic screening and monitoring in the workplace? For each statement, please indicate whether you agree strongly, agree somewhat disagree somewhat, or disagree strongly.

somewhat, of uisagree strongly.				
	AGREE STRONGLY	AGREE Somewhati	DISAGREE Somewhat	DISAGEE STRONGLY
It's fair for employers to use genetic screening to identify Individuals whose Increased risk of occupational disease poses the potential for greater costs to the employer	1		1	
The employer should have the option of deciding how to use the Informat obtained through genetic screening and monitoring	ion			
The decision to perform genetic screening of job applicants and em- ployees should be the employer's	ם			
The decision to perform genetic monitoring of employees should be the employer's	ם		5	
Government agencies should provide guidelines for genetic screening of job applicants and employees				
Government agencies should provide employees for genetic monitoring				
Genetic screening in the workplace represents a potential threat to the rights of employees	 D			

DEMOGRAPHICS

D1. What is the magjor Industrial classification of your company (such as chemicals, food, textiles, ?

D2. Approximately how many persons are employed in the United States by your company?

u	u
Less than 1,000	1,000-4,999

L		
10.000	or	more

D3. What proportion of the establishments in your company have occupational health care professionals on premises?

All	Host	Some	Few	None

5,000-9.999

D4. Which of the following types of health professionals are employed, either full or part time, as part of the occupational health staff of this company?



D5. What is your job title?

D6. What arc your main job responsibilities?

Thank you very much for your cooperation in answering our questions. We would also like to give you an opportunity to give us any other opinions, concerns or suggestions related to genetic testing in the workplace that you feel our questions did not address. These comments may be incorporated in our report to Congress. We would also appreciate your comments on any survey questions that you found confusing or difficult to answer, to help us analyze the results. Please write these comments below.

We have attached a peel-off identification number on the questionnaire. This is the only link between the companies who were sampled and the questionnaires returned. We would prefer that you leave the identification number on the questionnaire when you return it. Our staff will remove the label upon receipt, making the questionnaire completely anonymous. No linkage between companies and questionnaires will be retained. The label from the completed questionnaire will allow us to eliminate your company from those that we have to recontact.

However, if you feel that you cannot complete the questionnaire if there is even temporary identification, then peel off the label before returning the questionnaire. Wc appreciate your help and wc want you to be comfortable with doing the survey.

PEEL OFF LABEL WITH SAMPLE IDENTIFICATION NUMBER HERE

PLEASE RETURN IN THE POSTAGE PAID RETURN ENVELOPE SENT WITH THE QUESTIONNAIRE. IF THE RETURN ENVELOPE HAS BEEN LOST, THE RETURN ADDRESS IS:

> Schulman, Ronca and Bucuvalas, Inc. 444 Park Avenue South New York, New York 10016

(212) 481-6200 Attn: Dr. Mark Schulman