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 genetic monitoring we mean periodically examining employees to evaluate modifications of their genetic material via tests such as cytogenetic or direct-DNA tests. By genetic screening 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

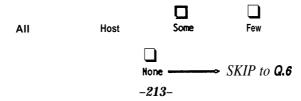
This is an important study, which has been requested by the Congress of the United States, designed to represent the opinion and experience of the employer. We need to know how employers view the technologies of genetic screening and monitoring in terms of their current and future applications to the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

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



2. Would your company consition in order to:	der It acceptable or unacce	eptable to conduct a p	ore-employmen	t health examina-
			ACCEPTABLE	UNACCEPTABLE
Identify Job applicants wh	ho are physically unfit for e	employment		
			_	
Identify job applicants wh	no are emotionally or psychologic	cally unstable	•	
identify Job applicants who	o are currently using drugs		• 1	
Identify job applicants wh	no are at increased risk to work	kpl ace hazards	🖵	
Identify job applicants w	vith genetic susceptibility t	o workplace exposur	es 🗖	
Identify job applicants wh	o represent high insurance risks			
3. Whichofthe following are			on in your comp	oany for
non-administrative positio	ons? (MARK ALL THAT AI	PPL1)		
Personal medical history	□	Chest X-ray		□
Family medical history		Pulmonaryfunctio		
Simple physical examinat		Eye and hearing ex	(am	_ _
Standard blood chemistry	y tests	Urinalyses for drug use		
EKG•00*,*,•	···,·, •***. -	Lower back X-ray	/	o.
4. Which of the following ty applicants?	ypes of results of pre-emplo	oyment examinations	would normal	y be releasedtojob
	re findings)*.***,			
	ndicated in medical history			
	ted in medical history			
Positive findings whi ch di squa	lify them for employment	, 		
Positive findings which aft	fect position/site eligibility .			
All of the above				
None		,	>SI	(IP TO Q.6
5. How would that informati	ion normally be released to	job applicants?		
Letter	Consultationwith medical staff	Both	Other	

6. Are there any specific medical c uals from eligibility for certaplatinum, pregnancy)?						
	Yes	No -		→ SKIP TO Q.	7	
6a. Which medical criteria	would exclude o	employment	in which jo	bs?		
Medical Cri teri a		Excl uded	Posi ti on/J	ob/Si te		
1.						
2.						
3.						
7. Are any employees in your	company expos	ed to chemic	cals or ioniz	ing radiation in	the workpla	ce setting?
	Yes	No -		→ SKIP TO Q .	8	
7a. Arc those employees prolonged exposure?	s who are expo	sed to chemi	cals or ioni	zing radiation r	outinely ro	tated to avoid
	Yes		No			
7b. Does your company co					es whose j	ob may expose
	Yes		No			
8. Are any employees in your confinegative health outcome,					here there i	s a greater risk
	Yes	No		⇒ SKIP TO Q	.9	
8a. Do you conduct any these jobs?	form of screen	ing to identi	fy employe	es or job applic	cants at inc	reased risk <i>for</i>
	Yes		No	→ SKIP	TO (?.9	
8b. Which, if any, of the face ceptibility to workplace		es of screenin	ng are cond	ucted to identify	y increased	individual sus-
Medical History	Non-genetic (e.g., lower allergy t	back X-ray,	Genetic	screeni ng	Non-	1

9a. As part of ongoing worker health evaluation 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:					
					offer to employees ellness program?
	ML PLANT JOBS		NS/	OFFER VO	
a. Routine physi cal examina	ition 🗖				
b. Test for hypersensitivity		ū			n
c. Hearing tests		Ц			0
d. Pulmonary function tests					0
e. Vision tests					
f. Chest X-rays					O
g. Blood chemistry tests	. •			l u	
10. Would your company consider the us generally acceptable or generally un			o <u>nitoring of</u> e	employees or	job applicants as
				GENERALLY ACCEPTABL	
Make a clinical diagnosis of a sid					П
Establish 1 inks between genetic predis					_
Inform employees of their increased s					
Exclude employees with Increased susce					П
Monitor chromosomal changes as					_
Establish evi dence of pre-empl oyment I					
11. Does your company have a formal j or employees?	ропсу гегатес	i to the use of	geneuc tests	s in the screen	ng or job applicants
Yes		No			
12. Does your company have a formal health?	policy relat	ed to the use	of genetic te	ests in the mor	nitoring of employee
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 co		cal genetic screer	ning of any empl	oyees or job ap	plicants, <i>for</i>
research or any other reason	?				
	Yes	No	Not Come		
			Not Sure		.1°4 6
Has your company conducte research or any other reason i			g of any emplo	yees or job ap	plicants, for
	Yes	No	Not Sure		
15. Is your company currently c search or any other reason?	onducting <u>cytogen</u>	etic monitoring o	f any employees	s or job applic	ants, for re-
	Yes	No	Not Sure		
16. Has your company conduct or any other reason in the pas		c monitoring of a	ny employees or	job applicants,	for research
	Yes	No	Not Sure		
17. Is your company currently esearch or any other reason?	conducting <u>direct-l</u>		f any employees	or job applic	ants, for re-
		1			
	Yes	Но	Not Sure		
18. Is your company currently research or any other reason		DNA monitoring	g of any employ	vees or job ap	plicants, for
	u				
	Yes	Но	Not Sure		
19. Has your company conducte tary wellness program, at the					
		BIOCHEMICAL GENETIC SCREENING	CYTOGENETIC MONITORING	DIRECT-DNA SCREENING	DIRECT-DNA MONITORING
 a. As part of a voluntary wellness program 	Currently	□			
	In past 19 years	• 1			
	No				
	Not sure				
b. At the request of the employee:	Currently	• 1			
	In past 19 years				
	No				
	Not SUre				
c. For diagnosis:	Currently		a		
	In past 19 years				
	No				
	Not sure				

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 FOLLOW-UP DI AGNOSI S. OR AS PART OF A VOLUNTARY WELLNESS PROGRAM, OR ONLY AT THE REQUEST OF AN EMPLOYEE

NOT DONE	ROUTINE HEALTH SURVEILLANCE	VOLUNTARY RESEARCH PROGRAM	FOLLOW-UP DIAGNOSIS	VOLUNTA WELLNESS PROGRAM	ARY AT EMPLOYEE REQUEST
Sickle cell trait					
Glucose-6-phosphate dehydrogenase deficiency (G-6-P0)					
Methemaglobin reductase deficiency					
Serum alpha-1-antitrypsin deficiency					
Alpha and beta thal assemias					
Aryl hydrocarbon hydroxylase inducibility (AHH)				El	
Slow vs. fast acetylation					
Allergic respi ratory di sease					
Contact dermatitis					
Histocompatibility markers (HLA)					
Other immune system markers	El				
Bloom syndrome					n
Fanconi syndrome					
Ataxia-telangiectasia 1					
Xeroderma pigmentosum					
Other heterozygous chromosome? instabilities			n		

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 DONE 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

ROUTINE HEALTH SURVEI LLANCE	VOLUNTARY RESEARCH PROGRAM	FOLLOW-UP DIAGNOSIS	VOLUNTARY WELLNESS PROGRAM	AT EMPLOYEE REQUEST
U	u	L		
ES 1 1 1 1	NO		findings, b	oth or
ormal (positive)	genetic test	results by th	e company	or are
	HEALTH SURVEI LLANCE	RESEARCH PROGRAM RESEARCH PRO	HEALTH SURVEILLANCE RESEARCH PROGRAM DIAGNOSIS	HEALTH SURVEILLANCE RESEARCH FOLLOW-UP PROGRAM RESEARCH FOLLOW-UP DIAGNOSIS PROGRAM RESEARCH FOLLOW-UP DIAGNOSIS PROGRAM RESEARCH FOLLOW-UP MELLNESS PROGRAM

25. Does your con	mpany employ or	contract with a g	enetic couns	selor?		
	Empl oy	Contract with	n N	ei ther		
-	loyee ever beer or genetic testing	_	etic counseli	ng by your con	npany% me	dical staff as a result of
		Yes	No			
27. As a result o	of a genetic screer	ning or monitoring	g program h	as your compa	any ever?	
Suggested an en	mlovee seek ioh elsev	where	YES	NO		
Placed an en	mplovoo or transf	orrod an	_			
employee to	a different job in	the company		Ц		
Implemented	l engineering conti	rol	Ц	U C		
	•	tion devices		U		
Implemented a res	search program		• 1			
Discontinued materials in a	l a product or cha a product	nnged	🗖			
28. Has your con results of:	npany ever institu	ated or changed a	workplace į	practice or exp	osure level o	due to the
					YES	NO
		own establishment				U
		onitoring in your			_	
		er company's estal				u
		onitoring in anoti				
Information	published by fe	deral agencies, i	ncluding NIO	SH and OSHA	□	
29. In the past 1 of:	0 years has your	company chosen	not to use g	enetic screenin	g or monito	ring due to the results
•				YES		NO C
	-	own establishment	•	_		
		er company's esta				
		wn establishment(
Genetic scr	reening in anothe	r company's estab	lishments	L		L

30a. Which office deterr screening?	nines whether or n	ot a specific te	st will be conducted as p	part of pre-employment
	30b. Which	n office determin art of employee h	nes whether or not a speci nealth surveillance?	fic test will be conducted
Corporate healt Location person	PRE-EN SCRE onnel	APLOYMENT EENING	EMPLOYEE HEALTH SURVEILLANCE	
			1	
31. Is your company curr any reason?	ently considering co	onducting <u>direct</u>	-DNA screening of emplo	yees or job applicants for
	Yes	No	Not sure	
32. Is your company curr for any reason?	0			ploy ce s or job applicants
	Yes	No	Not Sure	
33. Does your company a years?	nticipate conductin	g any <u>biochemic</u>	al genetic screening, for a	ny reason, in the next five
	res	No	Not Sure	
34. Does your company years?	anticipate conduct	ting any <u>cytoge</u>	netic monitoring, for any	reason, in the next five
	ſes	No	Not Sure	
35. Does your company a	nticipate conductin	g any <u>direct-DN</u>	A screening, for any reason	on, in the next five years?
	[] (es	□ No	Not Sure	

36. Does your company anticipate conducting a years?	nny <u>direct-DNA</u>	monitoring for any reason, in	n the next five
Yes	No	Not Sure	
37. Which office/division within the company is/	will be responsi	ole for administering genetic tes	ts?
38. Which position/ofl'ice within the company M	fill be responsib	e for interpreting genetic test	results?
39. Which office in your company is responsible	for employee he	alth records?	
tkdfcal/Occupational health			
Other (Specify)			
Other (Specify)			
40. Does your company permit access to employermission, or both, to: AT COMPANY DI SCRETI ON	oyee medical rec EMPLOYEE PERMISSION	ords at company discretion	, with employee
Personnel department			
Health Insurance carriers $\ldots \ldots$			
Life insurance carriers 1			
Disability insurance carriers			
Unions			
Other companies 1			
Employee			
Employee's spouse			
Other family			

GENERAL ATTITUDES

41. How do you feel about the following g workplace? For each statement, ples somewhat, or disagree strongly.	•			_
somewhat, or disagree strongly.	AGREE STRONGLY	AGREE DISAGREE SOMEWHAT		
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	□	un		
The employer should have the option of deciding how to use the informat obtained through genetic screening and monitoring.	i on	00		
The deci si on to perform genetic screening of job applicants and empl oyees should be the empl oyer's		00		
The decision to perform genetic monitoring of employees should be the employer's.		ncl		
Government agencies should provide guidelines for genetic screening of job applicants and employees		00		
Government agencies should provide guidelines for genetic monitoring o employees	of \square	00		
Genetic screening in the workplace represents a potential threat to the rights of employees.		00		
	DEN	MOGRAPHICS		
D1. What is the major industrial class D2. Approximately how many persons are				?
	1	1	1	
Less than 1,000 1,000	-4,999	5,000-9,999	10,000 or more	
D3. What proportion of the establishm premises?	ents in you	ir company have oc	cupational health care profess	ionals on
All	Host	Some Few	None	
D4. Which of the following types of heat occupational health staff of this con	_	sionals are employed	, either full or part time, as pa	art of the
Physicians Physician (MD/Do) assistants	Nurse	Registered	Industrial Other health	

D5 What is your job title?
D6. What are 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. We appreciate your help and we 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) 4814\$200 Attn: Dr. Mark Schulman