BRINGING YOUR DNA TO WORK: EMPLOYERS' USE OF GENETIC TESTING UNDER THE AMERICANS WITH DISABILITIES ACT

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I. INTRODUCTION

Scientists and doctors alike tout the advent of genetic testing as one of the greatest medical breakthroughs in history and continued genetic research as one of the most important projects ever undertaken.[1] Developed in 1990, the Human Genome Project is an international collaboration of scientists determined to create a map of the more than 100,000 gene sequences found in human DNA through extensive gene research.[2] The ultimate success of the project will provide "tremendous opportunities"[3] for the early diagnosis, prevention, and treatment of a number of genetic diseases, including: Alzheimer's, inherited breast and ovarian cancer, cystic fibrosis, and Huntington's disease.[4]

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1. *See* Mark A. Rothstein, *The Genome Project as Public Policy*, 68 BULL. N.Y. ACAD. MED. 144, 146 (1992) [hereinafter Rothstein, *The Genome Project as Public Policy*].

2. *See* OFFICE OF BIOLOGICAL & ENVTL. RESEARCH, U.S. DEP'T OF ENERGY, HUMAN GENOME PROJECT INFORMATION, ¶ 1 (1999), *at* http://www.ornl.gov/hgmis/project/about.html [hereinafter HUMAN GENOME PROJECT INFORMATION I].

3. Kristie A. Deyerle, Comment, *Genetic Testing in the Workplace: Employer Dream, Employee Nightmare—Legislative Regulation in the United States and the Federal Republic of Germany*, 18 COMP. LAB. L.J. 547, 553 (1997) (quoting Benjamin P. Sachs & Bruce Krof, *The Human Genome Project: Implications for the Practicing Obstetrician*, 81 OBSTETRICS & GYNECOLOGY 458, 458 (1993)).

4. *See* OFFICE OF BIOLOGICAL & ENVTL. RESEARCH, U.S. DEP'T OF ENERGY, HUMAN GENOME PROJECT INFORMATION, ¶ 1 (1999) (noting that some current tests only indicate the subject's susceptibility for developing the disorder and cannot conclude that the subject will actually develop the disease), *at* http://www.ornl.gov/hgmis/medicine/genetest.html [hereinafter HUMAN GENOME PROJECT INFORMATION II].

The inheritance of human traits, including hair color and height, is determined by genes, which transmit information from both parents to the child.[5] Many diseases are thought to stem from mutated genes that are either passed through the parent to the child or developed over the course of the child's life.[6] In addition, a number of diseases, including heart disease and cancer, develop because of the complex interplay between mutated genes and elements in the environment.[7] By identifying genes that are either mutated or susceptible to such environmental influence, it is possible to determine which diseases the child is likely to develop.[8]

The Human Genome Project will provide tremendous benefits to society in early diagnosis and prevention of potentially deadly illnesses because of its ability to predict future genetic disorders.[9] Further, it will provide scientists and physicians with a number of benefits. First, testing to determine an individual's genetic makeup will allow doctors to more accurately diagnose and treat his ailments.[10] Aggressive monitoring and early removal of tumors resulting from

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5. *See* American Bar Ass'n, *A Genetics Glossary for Judges*, 36 JUDGES' J. 65, 66 (1997); Jeremy A. Colby, *An Analysis of Genetic Discrimination Legislation Proposed by the 105th Congress*, 24 AM. J.L. & MED. 443, 447 (1998).

6. *See* NAT'L CANCER INST., U.S. DEP'T OF HUMAN HEALTH & SERVS., UNDERSTANDING GENE TESTING ¶ 1 (1995), *available at* http://www.accessexcellence.org/AE/AEPC/NIH/, How are genes linked to disease? (last visited Dec. 15, 2001) [hereinafter UNDERSTANDING GENE TESTING]. Currently, geneticists have been able to identify over 450 human ailments caused by a single gene mutation. *See generally* ALBERT TOWLE, MODERN BIOLOGY 171 (1993). Over 200 diseases, including Huntington's disease, have been linked to the presence of a particular dominant gene or allele. *See id.* An additional 250 diseases, including cystic fibrosis, have been linked to homozygous recessive genes, which are directly linked to a single genetic trait. *See id.* Further testing and research will dramatically expand this number. *See id.*

7. *See* UNDERSTANDING GENE TESTING, *supra* note 6, at ¶ 4, *available at* http://www.accessexcellence.org/AE/AEPC/NIH/, How are genes linked to disease?.

8. As of October 1990, the Office of Technology Assessment estimated that there were approximately fifty diseases that have the "potential to enhance an individual's susceptibility" to toxins and carcinogens in environmental agents. OFFICE OF TECH. ASSESSMENT, U.S. CONG., GENETIC MONITORING AND SCREENING IN THE WORKPLACE 11 (1990), *available at* http://www.wws.Princeton.edu/~ota/ns20/year_f.html [hereinafter GENETIC MONITORING].

9. *See* Rothstein, *The Genome Project as Public Policy*, *supra* note 1, at 146. According to scientists, genetic testing will be used most often in five areas: "(1) carrier screening..., (2) prenatal diagnostic testing..., (3) predisposition testing..., (4) confirmatory diagnostic testing..., and (5) forensic and identity testing." Gail Dutton, *If the Genes Fit...Genetic Testing and Employers and Insurance Firms*, MGMT. REV., Oct. 1, 1995, at 25, 26.

10. *See* Melinda B. Kaufmann, *Genetic Discrimination in the Workplace: An Overview of Existing Protections*, 30 LOY. U. CHI. L.J. 393, 396–97 (1999) (noting that although tests will be beneficial in the future, they are currently unreliable and often inconclusive); *see also* HUMAN GENOME PROJECT INFORMATION I, *supra* note 2, at ¶ 1, *at* http://www.ornl.gov/hgmis/project/about.html (listing other potential uses of genetic testing as pre-natal diagnostic testing, newborn screening, pre-symptomatic testing for both predicting and estimating the risk of adult-onset disorders and forensic/identity testing).

colon and breast cancer has the potential to save thousands of lives.[11] Second, continued research of human genes has "accelerated the production of new technologies, research tools, and basic knowledge" of the human gene structure and its chemistry.[12]

This new technology can be used to assess public health needs in a number of areas.[13] The ability to rapidly sequence DNA will "facilitate the detection of mutations following exposure to radiation or environmental agents" immediately after a disaster.[14] In addition, scientists can determine a worker's susceptibility to environmental and workplace toxins more rapidly and provide protection for those who will be most harmed by the exposure.[15] Finally, genetic testing will assist doctors in the identification of people who are carriers of genetic diseases or disorders.[16] Carriers do not have the particular disease or disorder themselves but rather have the ability to pass recessive genes causing such disorders to their children.[17]

Although created primarily for medical professions, the use of genetic testing is not limited to doctors. Employers have recently begun to use genetic information as a tool to make employment decisions. In particular, this group is using genetic testing and monitoring to determine whether an employee's work environment is safe for both himself and his coworkers. If an employee demonstrates a particular sensitivity to a chemical present at the job site, the employer can either choose to remove the chemical or to transfer the employee to a different, less dangerous, workstation. By allowing an employer limited access[18]

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11. *See* HUMAN GENOME PROJECT INFORMATION II, *supra* note 4, at ¶ 3, *at* http://www.ornl.gov/hgmis/medicine/genetest.html (noting that the development of accurate and relatively inexpensive testing will transform a number of fatal conditions into treatable diseases).

12. GENETIC MONITORING, *supra* note 8, at 8. Another benefit not directly related to the Human Genome Project, but made possible by its continued success, is the rapid advance of "human genetics and molecular biology." *Id.* Scientists have been able to determine the origins of a number of diseases, including "cystic fibrosis, hemophilia, sickle cell disease, and hypercholesterolemia" from this growing body of knowledge. *Id.*

13. *See id.*

14. *Id.*

15. *See id.* A worker's susceptibility to workplace toxins and environmental factors has not yet been determined with current tests, but will be available as more detailed genetic linkage maps are developed. *See id.*

16. *See* Kaufmann, *supra* note 10, at 403.

17. *See* HUMAN GENOME PROJECT INFORMATION II, *supra* note 4, at ¶ 3, *at* http://www.ornl.gov/hgmis/medicine/genetest.html. Discovering that a parent, particularly the mother, is a carrier of a dominant gene that will potentially cause a disease or disorder in her child will allow families to avoid having children with a devastating disease. *See id.* Even if the parents do have the child, early detection may allow doctors to begin treatment early, potentially lessening the impact of the disease. *See id.*

18. Employers should be limited in their use of genetic information to decrease the risk of invidious employment discrimination, which is prohibited by the Americans with Disabilities Act (ADA). The scope of this Note is thus limited to only those uses that would otherwise be permitted under the ADA. This Note also focuses on employees in industrial chemical and manufacturing facilities because these employees have the greatest potential

to the genetic test results, an employer can create the most cost-effective and efficient workplace possible. Despite the benefit that this use can bring to both employees and consumers, commentators argue that employers should not be permitted to use genetic test results and that the Americans with Disabilities Act (ADA) should be expanded to include genetic maladies.[19]

Current federal and state statutes are not effective to protect against potential discrimination, however. The topic of genetic discrimination has sparked much debate at the state level, but employers in only three states—New York, Iowa, and Rhode Island—are currently prohibited from using genetic information to make employment decisions.[20] Most state statutes have instead focused on genetic discrimination in the provision of health insurance.[21]

At the federal level, the most comprehensive anti-discrimination statute to date is the ADA.[22] Although discrimination, particularly in employment, can be destructive, the ADA is not the correct vehicle to protect against genetic discrimination. Persons with mere predispositions to genetic disorders do not fall within the ADA's definition of disability because they display no present

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to be affected by their genetic sensitivities. However, the arguments set forth are applicable to most employers and employees.

19. *See* Mark A. Rothstein, *Genetic Discrimination in Employment and the Americans with Disabilities Act*, 29 HOUS. L. REV. 23, 25 (1992) [hereinafter Rothstein, *Genetic Discrimination in Employment*] (noting that although employers have been permitted to discriminate among workers on the basis of education and experience in the past, invidious discrimination, such as that "based on race, color, religion,...age or disability" is illegal). Commentators also argue that employers will exclude those persons who are likely to develop certain expensive disorders in an effort to lower their overhead and operating costs. *See id.* at 28–30.

20. *See* Jennifer Dotsey, *Lawmakers Crack Down on Genetic Discrimination: A Legislative Overview*, 10 GENE WATCH 2 (1996).

21. *See id.* (commenting that "[t]hirteen states have already enacted laws designed to fight discrimination in health insurance on the basis of predictive genetic information: California, Colorado, Georgia, [Iowa], Maryland, Minnesota, New Hampshire, [New York], Ohio, Oregon, [Rhode Island], Virginia, and Wisconsin"). As a result, commentators have argued that asymptomatic individuals who are predisposed to future genetic disorders should be protected under the ADA. *See, e.g.*, Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 33 ("[T]he broad policy of the ADA to prohibit discrimination based on health status encompasses most genetic conditions."). If these individuals were considered disabled under the ADA, however, employers would be prohibited from discriminating against them solely because of their genetic information.

22. As of the date it was enacted, the ADA was the first statute to prohibit discrimination in both public and private employment on the basis of disability. At the time, Congress did not specifically draft the bill with the problems of genetic testing and discrimination in mind, although some commentators suggest that the ADA may be expanded to provide protection in this area as well. For more information on this topic, see generally Rothstein, *Genetic Discrimination in Employment*, *supra* note 19. For a discussion of the limits of the ADA and its failure to specifically provide protection for genetic discrimination, see discussion *infra* Part II, and Symposium, *Legal and Ethical Issues Raised by the Human Genome Project*, 29 HOUS. L. REV. 7, 8–10 (1992).

symptoms that substantially limit a major life activity.[23] In addition, the ADA was created to protect only those persons that are presently disabled, and interpreting it to include all persons with a potential to become disabled in the future, including those persons genetically predisposed to becoming disabled, would violate the original intent of the ADA.[24] Even if the Act is interpreted so broadly, however, employers have a right to use all information that is necessary to make important employment decisions. Particularly where this use is motivated by non-discriminatory purposes, it should be protected, despite the limitations of the ADA, as a necessary element of conducting business.[25]

Part II of this Note explores the benefits to employers and employees of using genetic test information in the workplace. This section concludes that employers should be permitted, to the extent that is reasonably necessary, to use genetic information, even if asymptomatic individuals are expressly protected by the ADA. Part III discusses the debate over whether the ADA should be expanded to prevent genetic discrimination in the workplace. It concludes that, although the current definition of disability is broad, expanding the definition even more would violate the Act's original intent and decrease its current power to prevent employment discrimination.

II. EMPLOYERS' USE OF GENETIC TEST RESULTS SHOULD BE PROTECTED AND ENCOURAGED WHERE THE INFORMATION IS JOB-RELATED AND USED CONSISTENT WITH BUSINESS NECESSITIES

The proper and restricted use of genetic test results will prove beneficial to both employees and employers in the future.[26] Federal law requires employers to maintain a safe work environment for its employees.[27] By allowing them to monitor an employee's health, including his *genetic* health, employers are better able to determine what modifications to the workplace are needed. Further, employers can use the information gained from genetic tests to place employees in the most appropriate work stations, consistent with the employee's particular sensitivity to chemical agents. This could decrease the likelihood that the employee would cause harm to himself or others while on the job. Finally, by permitting an employer to use genetic test information when evaluating its

23. *See infra* Part III.C.

24. *See infra* Part III.A–B.

25. *See infra* Part II.

26. Implicit in this argument is the understanding that the restricted and proper use of genetic testing and its results, as discussed in this Note, will be widely publicized. In addition, it may be necessary to restrict *which* employers could have access to test results. Access should be limited to those employers who could demonstrate either that the information is necessary for the health and safety of their employees and customers, or that they are required to maintain a particular level of productivity. This is the only way to combat workers' fears that the test results will be used in a discriminatory manner.

27. For a more complete discussion of an employer's duties under federal law, and the availability of genetic testing as a more thorough means of complying with those laws, including the Occupational Safety and Health Act (OSHA), see *infra* Parts II.C and II.D.

employees, the employer can create the most efficient and cost-effective workplace possible.[28]

A. Employers' Use of Genetic Test Information is Not Widespread, and Fears of Invidious Discrimination are Largely Unfounded

Despite fears that employers are using genetic information to discriminate against eligible workers, very few companies are actually collecting and utilizing this information for *any* reason. In 1989, the Office of Technology Assessment conducted a study[29] of the Fortune 500 companies, the fifty largest utilities, and thirty-three major labor unions.[30] Of the 330 units responding to the *Congressional Study of Medical Monitoring in the Workplace*, twenty health officers "reported that their companies had conducted genetic monitoring or screening" at some point in the past nineteen years.[31] As of 1990, nearly thirty-five percent of the same Fortune 500 companies responding to the survey reported having company policies regarding hiring persons with pre-existing medical conditions.[32] Of these, however, only six percent admitted having a standard company policy that

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28. Again, because of the potential for discrimination by employers searching for the most cost-effective workplace possible, this use should be severely restricted to ensure that employers are using the information properly. For a detailed discussion of this topic, see *infra* Part II.F. *See also infra* Part II.E (discussing the employer's use of genetic test information to increase workplace productivity).

29. This study, along with the Office of Technology Assessment's (OTA) *Genetic Monitoring* survey, is the most recent study of its kind. Individual groups, including researchers at Georgetown University, have created similar surveys, but the scope of these studies has been limited to public attitudes about genetic testing. *See* DEP'T OF HEALTH & HUMAN SERVS. & EQUAL EMPLOYMENT OPPORTUNITY COMM'N, U.S. DEP'T OF LABOR, GENETIC INFORMATION AND THE WORKPLACE, *available at* http://www.d01/_sec/public/media/reports/genetics.htm (last visited Dec. 15, 2001) (citing Harris Poll, 1995, #34). As a result, the OTA's studies continue to be regarded as the most authoritative surveys on this topic. *See, e.g.*, Kaufmann, *supra* note 10, at 393–94; Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 26; Deyerle, *supra* note 3, at 558.

30. *See* GENETIC MONITORING, *supra* note 8, at 3. Both the *Genetic Monitoring* and *Medical Monitoring* studies were conducted before the ADA, along with its proscription against general pre-employment medical examinations, was enacted. *See, e.g.*, OFFICE OF TECH. ASSESSMENT, U.S. CONG., MEDICAL MONITORING AND SCREENING IN THE WORKPLACE: RESULTS OF A SURVEY (1991), *available at* http://www.wws.Princeton.edu/~ota/ns20/year_f.html. [hereinafter MEDICAL MONITORING]. As a result, neither study considers the ADA or its corresponding requirements. Under the ADA, pre-employment medical examinations are invalid unless they are specifically job-related, consistent with business necessity, and given in a non-discriminatory manner. *See id.* at 4 n.1. For a discussion of the ADA and its current effect on the use of genetic test results for employment decisions, see discussion *infra* Part III.

31. MEDICAL MONITORING, *supra* note 30, at 3. The 1989 survey "found twelve Fortune 500 companies reporting current use of genetic monitoring or screening for research or any other reason." *Id.* In a similar study conducted in 1982, only six companies monitored their employees' genetic conditions. *See id.*

32. *See id.*

specifically prohibited hiring persons with certain genetic defects.[33] Despite having these policies, only *two* of those Fortune 500 companies reported that a job applicant was rejected or transferred, at least in part, because of that applicant's genetic test results.[34]

Even though the employers responding to the survey recognized the importance of maintaining employees' health and safety, particularly where there are known health risks,[35] most did not use genetic test results to further this legitimate interest because of the tests' prohibitive costs.[36] Only five percent of those studied had a policy regarding hiring persons with increased genetic susceptibility to harm from substances or conditions in the workplace.[37] Of those companies with policies, only five percent specifically prohibited hiring employees with genetic defects and pre-existing medical conditions, in contrast to the thirteen percent with no such specific policy.[38] Half of the companies reported that pre-employment health examinations were required of all job applicants.[39] An additional ten percent reported that most, but not all, applicants are tested for specific medical conditions, including physical and emotional fitness and drug use.[40] The most common pre-employment medical screenings are conducted to

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33. *See id.* at 4.

34. *See* Larry Gostin, *Genetic Discrimination: The Use of Genetically Based Diagnostic and Prognostic Tests by Employers and Insurers*, 17 AM. J.L. & MED. 109, 117–18 (1991) (citing GENETIC MONITORING, *supra* note 8, at 182).

35. *See* MEDICAL MONITORING, *supra* note 30 at 5.

36. *See id.* Corporate officials generally agree that current methods of genetic testing and monitoring are not yet cost-effective and, as a result, are not widely used. *See id.* However, both employers and employees could benefit from expanded use of genetic test results for this purpose. *See infra* Part II.C–F.

37. *See* MEDICAL MONITORING, *supra* note 30, at 4. Each company responding to the survey listed a number of factors to be considered in the genetic testing. Among the factors affecting a job applicant's eligibility for employment were: back ailments, pregnancy, sensitivity to materials used in production, and pre-existing respiratory conditions. *See id.*

38. *See id.* The remaining eighty-two percent of the companies with policies regarding the employment of persons with pre-existing medical conditions and genetic defects did not state whether the company policy specifically prohibited hiring those with an increased susceptibility to workplace conditions. *See id.* at 11. Based on the circumstances of the survey, and the answers provided, however, it is possible to conclude that these remaining companies excluded such persons from some jobs and duties, either completely or under certain conditions, depending upon individual circumstances. *See id.* at 12 tbl. 2-1.

39. *See id.* at 4.

40. *See id.* The remaining employers responding to this survey question reported that few, if any, job applicants were subjected to pre-employment health examinations. *See id.* at 15 tbl. 2-7. Further, twenty-eight percent of those responding to the questions regarding employee health examinations noted that none of their job applicants were tested for genetic disorders or health conditions. *See id.*

determine whether the applicant has used certain drugs, including marijuana and cocaine, for a period of time before being tested.[41]

B. Genetic Test Methods

Employers currently use two methods of genetic testing[42] to determine whether potential and current employees are afflicted with genetic abnormalities: genetic monitoring and genetic screening.[43] Genetic monitoring involves periodic and random testing of *current* employees, and examines the test subject for "evidence of induced change in their genetic material."[44] Induced changes are usually a result of exposure to toxins and chemicals in the workplace, although non-work related environmental factors such as cigarette smoke and aging could also cause such damage.[45] As of 1990, the tests could not specifically identify *which* toxins caused the chromosomal change, although they could accurately

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41. *See* Paul Steven Miller, *Is There a Pink Slip in My Genes? Genetic Discrimination in the Workplace*, 3 J. HEALTH CARE L. & POL'Y 225, 235–36 (2000). The American Management Association conducted a poll of its members, which include many major corporations and organizations, in 1997. *See id.* According to its results, seventy-five percent of the 906 groups surveyed conducted mandatory medical and drug tests. *See id.* In contrast, only six percent of the same companies subjected their employees to genetic testing. *See id.*

42. Genetic testing involves the examination of a person's DNA and chromosomes. *See* GENETIC MONITORING, *supra* note 8, at 3. The test cells most often come from a drop of the test subject's blood, although they may also be taken from other bodily fluids, including saliva, and soft body tissue. *See* Miller, *supra* note 41, at 229. Once the cells are collected, scientists can perform a number of tests, including the probe, linkage, and normal gene comparison tests, on the DNA and chromosomes to detect maladies. *See id.* at 230. The probe test involves the construction of a DNA probe by identifying and copying the diseased gene. The probe "chemically binds to, and highlights, a particular mutation in the cell's DNA." *Id.* This test is more accurate than other available tests, but is currently used for a limited number of genes. *See id.* The linkage test is difficult to administer and is thus rarely used because it attempts to link a particular mutation to a known disease. To perform this test correctly, scientists must screen several generations of a family with a history of genetic disease. *See id.* The final testing method, the normal gene comparison test, involves a simple comparison of the test subject's gene with a normal gene, free of any mutations or defects. *See id.* (citing Denise K. Casey, *What Can the New Gene Tests Tell Us?* 36 JUDGES' J. 14, 17 (1997)). Both the linkage and gene comparison tests are not as accurate as the probe test because they involve more speculation and are more susceptible to human error. *See id. See generally* UNDERSTANDING GENE TESTING, *supra* note 6, *available at* http://www.accessexcellence.org/AE/AEPC/NIH/, How are genes linked to disease? (describing genetic tests and the limitations of genetic test results); Kaufmann, *supra* note 10, at 397 (noting that genetic test results are not always accurate). Regardless of the test used, however, the goal is always the same: determining to which diseases the employee is susceptible, based upon his genetic mutations. For more information about genetic testing and the methods used, see also HUMAN GENOME PROJECT INFORMATION I, *supra* note 2, at ¶ 2, *at* http://www.ornl.gov/hgmis/project/about.html.

43. *See* Kaufmann, *supra* note 10, at 397–98.

44. GENETIC MONITORING, *supra* note 8, at 3.

45. *See id.* at 4.

report the *extent* of such changes.[46] Employers use the information gained from genetic monitoring tests to "target work areas for increased safety and health precautions."[47]

In contrast, genetic screening[48] is used to examine the genetic makeup of *prospective*, rather than current, employees.[49] Tests are used in one of two ways. First, an employer may screen job applicants for the presence of genetic traits or sensitivities that render those applicants unfit for particular occupations.[50] For example, an employer may screen applicants for genetic sensitivity to agents or toxins used in connection with their occupational duties. Continued exposure to such agents would increase the likelihood that an employee would contract certain occupational diseases. Based upon his test results, an applicant is either placed in the most appropriate work area or, if such a position does not exist, denied a position. Second, job applicants are screened for genetic predispositions to certain heritable conditions, other than those that are specifically related to the workplace.[51] Of the two methods, genetic screening is the most controversial because it "*a priori* measures...conditions beyond an individual's control."[52] Even so, employers have a legitimate need to use this information for non-

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46. *See id.*

47. *Id.*

48. *See id.* at 5. Genetic screening tests are usually given to an employee *once* to determine the potential employee's genetic makeup. *See id.* In contrast, genetic monitoring tests are usually given *multiple times* to track changes in the employee's genes. *See id.*

49. The ADA imposes strict requirements on medical testing for prospective employees. For example, the ADA does not permit an employer to require prospective employees to undergo medical examinations seeking information about that individual's physical or mental condition before the person is given a job offer. *See* EQUAL EMPLOYMENT OPPORTUNITY COMM'N, ADA ENFORCEMENT GUIDANCE: PRE-EMPLOYMENT DISABILITY-RELATED QUESTIONS AND MEDICAL EXAMINATIONS ¶ 40 (1995), *available at* http://eeoc.gov/docs/preemp.html [hereinafter DISABILITY-RELATED QUESTIONS]. *After* the applicant is given an offer, the employer may require the employee to undergo medical testing only if: (1) "all entering employees in the same job category" are subjected to the same examinations, regardless of any apparent disabilities or genetic conditions, and (2) "the medical information is kept confidential." *Id.* ¶ 53 (citing 42 U.S.C. § 12112(d)(3) (2001); 29 C.F.R. § 1630.14(b)(1)–(2) (2001)). At the post-offer stage, medical examinations do not have to be job-related. *See id.* For more information on the ADA requirements for medical testing of current employees, see discussion *infra* Part II.E.

50. *See* GENETIC MONITORING, *supra* note 8, at 5.

51. *See id*; *see also infra* notes 73–75 and accompanying text.

52. GENETIC MONITORING, *supra* note 8, at 5. Commentators use this idea to bolster their argument that the ability to distinguish between job applicants on a molecular level will increase the likelihood of discrimination and prejudice in the workplace. *See, e.g.*, Gostin, *supra* note 34 (arguing that current legal mechanisms, including the ADA and Civil Rights Act, should be expanded to provide protection for individuals against genetic discrimination, particularly in the workplace); Kaufmann, *supra* note 10, at 433–436 (noting that the fear of genetic discrimination is so severe that a number of states have enacted legislation prohibiting the use of genetic testing in certain circumstances, including employment decisions); Rothstein, *Genetic Discrimination in Employment*, *supra* note 19 (arguing that the ADA should be interpreted broadly to provide protection for individuals with genetic disorders).

discriminatory purposes, including employee health and safety considerations. These uses do not violate the ADA, and, as a result, should be both protected and encouraged.[53]

C. Testing to Ensure Compliance with Federal Law

Even if genetically pre-disposed individuals are protected by the ADA, employers are motivated to conduct genetic tests for many reasons, and to the extent that such testing is motivated by *non-discriminatory purposes*, an employer's use of the Human Genome Project technology should be protected. Employers are required to test the health of both current and prospective employees in order to comply with current federal law.[54] The Occupational Safety and Health Act (OSHA) mandates that all work environments be sufficiently "free from recognized hazards that are causing or are likely to cause death or serious physical harm."[55] A recognized hazard is one that is either recognized by the industry as a whole, or specifically known to the individual employer.[56] The legislative goal of OSHA is to reduce the number and severity of known workplace toxins, thereby providing a safe environment for workers,[57] particularly in chemical manufacturing industries.[58] Current medical surveillance regulations

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53. See *supra* note 49 and *infra* Part II.E for a more complete discussion of the ADA's requirements for employee testing.

54. The testing requirements under current federal law do not encompass genetic testing, and it is not clear whether Congress will amend the laws to include this new technology. *See, e.g., infra* note 59 and accompanying text.

55. Occupational Safety and Health Act, 29 U.S.C. § 654(a)(1) (2001).

56. *See* Jack F. Williams, *A Regulatory Model for Genetic Testing In Employment*, 40 OKLA. L. REV. 181, 190–91 (1987). To prove that a recognized hazard exists, a plaintiff must show that the employer had either actual or constructive knowledge of the hazard, or that the employer's safety standards were below those set by the industry. *See* Magma Copper Co. v. Marshall, 608 F.2d 373, 376 (9th Cir. 1979) (holding that an employer's actual knowledge of a hazard is sufficient proof that the hazard was recognized under OSHA requirements).

57. By enacting OSHA in 1970, Congress intended "to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve...human resources." 29 U.S.C. § 651(b) (2001). Under the Act's requirements, an employer has two obligations: first, to provide a safe working environment for employees, and second, to comply with safety regulations. *See* 29 U.S.C. § 654(a)(1)–(2); Williams, *supra* note 56, at 190 n.61 (noting the Secretary of Labor's authority to set standards requiring "conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment" (quoting 29 U.S.C. § 652(8) (2001)).

58. The workers in these and similar industries are of particular concern because they are exposed to "hazardous substances over many years at much higher concentrations than the general population." GENETIC MONITORING, *supra* note 8, at 9. In addition, workers in industries using a greater number of hazardous substances are less likely to know the occupational dangers they may face. *See id.* at 7 box-1. A 1987 study by the International United Rubber, Cork, Linoleum, and Plastic Workers of America discovered that, of the nearly 24,000 members surveyed, twenty-two percent were not sure whether they worked

direct employers to perform pre-employment and pre-placement medical examinations, but do not require disclosure of previously unknown genetic information and disorders.[59]

Although not required to maintain a perfectly safe work environment, employers must comply with safety regulations to the extent "reasonably necessary or appropriate to provide safe or healthful employment."[60] In order to provide such an environment, however, an employer must know an employee's sensitivities before placing him under particular work conditions.[61] In addition, it may be necessary to continue monitoring employees to detect increased levels of susceptibility to workplace exposures.[62] The employer's failure to actively monitor such employees may result in irreversible genetic damage and increase the employee's risk of contracting future illness and disease.[63]

Beyond providing protection for the individual employee, general genetic monitoring can provide the employer with valuable information that can assist the company in complying with OSHA standards for the workplace as a whole.[64] Employers may target groups of employees exposed to similar toxins or conditions to determine whether increased safety and health precautions are necessary to provide the employees in the group with a safer environment.[65] In addition,

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with hazardous chemicals, and only six percent felt that they were very informed about chemical hazards. *See id.*

59. *See, e.g.*, 29 C.F.R. § 1910.1001 (2001) (requiring pulmonary function tests and chest x-rays for exposure to asbestos); 29 C.F.R. § 1910.1017 (2001) (requiring complete physical exam and liver studies for exposure to polyvinyl chloride); 29 C.F.R. § 1910.1025 (2001) (requiring a complete medical exam and detailed blood analysis for exposure to lead).

60. Indus. Union Dep't v. Am. Petroleum Inst., 448 U.S. 607, 615 (1980).

61. Pre-employment and pre-placement testing are particularly important in companies that do not routinely rotate employees through work stations despite the employees' sustained exposure to chemicals and ionizing radiation. *See* MEDICAL MONITORING, *supra* note 30, at 23; Mark A. Rothstein, *Employee Selection Based on Susceptibility to Occupational Illness*, 81 MICH. L. REV. 1379, 1414 (1983) (noting that physicians conducting the pre-employment and pre-placement tests must provide the employer with a statement of suitability for employment in specified work environments before the employee may begin working).

62. *See* MEDICAL MONITORING, *supra* note 30, at 17.

63. *See* GENETIC MONITORING, *supra* note 8, at 4.

64. Employers recognize the benefits of conducting medical surveillance of employees whose jobs expose them to environmental health risks and may, as a result, perform additional tests not specifically required by OSHA. *See* MEDICAL MONITORING, *supra* note 30, at 26 tbl. 3-7. In the survey, employers were asked "[whether their] company conduct[s] any form of medical surveillance of employees whose jobs may expose them to environmental health risks, other than testing required by OSHA." *Id.* Over fifty-three percent responded that they did, with the greatest response from those companies with over 10,000 employees. *See id.*

65. *See* GENETIC MONITORING, *supra* note 8, at 4. Note that the National Institute for Occupational Safety and Health (NIOSH), which was created by OSHA to "develop and establish recommended occupational...standards," also relies upon medical testing and monitoring when determining whether an employer is complying with the OSHA standards.

increased levels of genetic mutations throughout the group may indicate a "need to lower exposure levels for a group exposed to a previously unknown hazard."[66]

D. Testing for Health and Safety Considerations

An employer may also require current and prospective employees to undergo genetic screening and monitoring tests to ensure workplace safety and employee health *beyond* that required under OSHA standards. The ADA[67] provides that employers may pre-screen job applicants to determine their qualifications for the positions offered.[68] A worker is not qualified for employment if he "pose[s] a direct threat to the health or safety of other individuals in the workplace."[69] The determination of whether an employee poses such a threat is made on a case-by-case basis, using four factors outlined in the Supreme Court's decision in *School Board of Nassau County v. Arline*[70] and codified in the Equal Employment Opportunity Commission's (EEOC) regulations.[71]

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29 U.S.C. § 671(c)(1) (2001). The Third Circuit upheld the NIOSH inspectors' ability to gain access to confidential employee medical records and test results during safety inspections in *United States v. Westinghouse Elec. Corp.*, 638 F.2d 570, 579 (3rd Cir. 1980) (noting that the information could be withheld from the inspectors only upon a showing that the "records [contained information that] is of such a high degree of sensitivity that the intrusion could be considered severe or that the employees are likely to suffer...adverse effects from disclosure").

66. GENETIC MONITORING, *supra* note 8, at 4.

67. 42 U.S.C. §§ 12111–12213 (2001). For the purpose of the following sections, it is important to note that the ADA applies to all employers that employ more than fifteen workers, regardless of whether any of its employees are actually disabled. *See id.* § 12111(5)(A). Thus, it is possible for an employer with no disabled employees to violate the anti-discrimination provisions of the Act. *See id.*

68. *See* 42 U.S.C. § 12113(a). If the pre-employment screening is "job-related and consistent with business necessity," an employer may not be charged with employment discrimination under the ADA. *Id.*

69. *Id.* § 12113(b). The ADA defines a direct threat as a "significant risk to the health or safety of others that cannot be eliminated by a modification of policies, practices, or procedures or by the provision of auxiliary aids or services." Bragdon v. Abbott, 524 U.S. 624, 648–49 (1998) (quoting 42 U.S.C. § 12182(b)(3) (1994)).

70. 480 U.S. 273, 288 (1987).

71. *See* 29 C.F.R. § 1630.2(r) (1998). The regulation provides, in pertinent part:

> Determining whether an individual poses a significant risk of substantial harm to others must be made on a case-by-case basis. The employer should identify the specific risk posed by the individual.... For individuals with physical disabilities, the employer must identify the aspect of the disability that would pose the direct threat. The employer should then consider...four factors...: (1) the duration of the risk; (2) the nature and severity of the potential harm; (3) the likelihood that the potential harm will occur; and (4) the imminence of the potential harm. Such considerations must rely on objective, factual evidence....

Id.

In addition, the employer may ask a prospective employee to undergo any medical testing,[72] regardless of whether the test, or the information that will be revealed, is job-related or consistent with a business necessity.[73] The employer can use this medical information to make an adverse employment decision if the "disability [or genetic condition revealed by the tests] cannot reasonably be accommodated and...the exclusionary criterion is job-related and consistent with [a] business necessity" of the company.[74] In contrast, a current employee may not be required to submit to *any* medical examinations or inquiries unless the tests or procedures are job-related and somehow necessary to the business.[75]

In the recent case of *Bragdon v. Abbott*,[76] the Supreme Court noted that an employer has a substantial interest in not hiring an employee who would present a significant risk to himself or others, including the business' patrons, while performing his job functions.[77] Although the case did not specifically deal with an employer-employee relationship, but rather a dentist-patient relationship, the Court's analysis of the health and safety issues under the ADA is instructive and can be applied to the employer-employee context.

In *Bragdon*, the plaintiff, Sidney Abbott, was denied dental services after telling her dentist that she was HIV positive.[78] She had been diagnosed eight years earlier, but the disease had "not yet progressed to the so-called symptomatic phase."[79] The Court looked beyond the patient's visible symptoms to conclude that Abbott was disabled under the ADA because her disease substantially limited her ability to reproduce.[80] Under the Court's decision, reproduction was considered a major life activity, and although Abbott was not prohibited from reproducing,

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72. *But see supra* note 49 (discussing the ADA's requirements for pre-employment medical testing, including the general prohibition against testing job applicants before they are extended job offers).

73. *See* Diane L. Kimberlin & Linda Ottinger Headley, *ADA Overview and Update: What Has the Supreme Court Done to Disability Law?*, 19 REV. LITIG. 579, 616 (2000). Even though a medical examination is not required to be related to the job functions, all applicants must be required to take the test, regardless of the presence of an actual disability. *See id.* In addition, all information obtained from the examination must be collected and maintained in separate files and designated as confidential medical records. *See id.*

74. *Id.* at 617 (citing EQUAL EMPLOYMENT OPPORTUNITY COMM'N, TECHNICAL ASSISTANCE MANUAL ON THE EMPLOYMENT PROVISIONS OF THE A.D.A. §§ 6.1, 6.4 (1992)).

75. *See* 42 U.S.C. § 12112(d)(4) (1994).

76. 524 U.S. 624 (1998).

77. *See id.* at 648–49. In his dissent, Chief Justice Rehnquist relied on the following *School Board of Nassau County v. Arline* factors to determine whether a risk is significant under the ADA: "(a) the nature of the risk..., (b) the duration of the risk..., (c) the severity of the risk..., and (d) the probabilities the disease will be transmitted and will cause varying degrees of harm." *Id.* at 662 (Rehnquist, C.J., dissenting) (quoting Sch. Bd. of Nassau County v. Arline, 480 U.S. 273, 288 (1987)).

78. *See id.* at 628–29.

79. *Id.* at 628. At the time of the incident, Abbott was in the asymptomatic phase of her HIV infection, which usually lasts between seven and eleven years and is marked by a low level of viral activity. *See id.* at 635–36.

80. *See id.* at 637–38.

"[w]hen significant limitations result from the impairment, the [ADA's] definition [of disability] is met, even if the difficulties are not insurmountable."[81]

The *Bragdon* Court did note, however, that the dentist would not have violated the anti-discrimination provisions of the ADA[82] if providing Abbott with the requested treatment would have created a significant health risk to his employees.[83] The presence of such a risk is determined from the "standpoint of the person who refuses the treatment or accommodation, and the risk assessment must be based on medical or other objective evidence."[84] Under this standard, an employer could consult with outside physicians, or other "objective third party experts," to determine whether an employee would present a significant health or safety risk.[85] The employer's good faith beliefs are not enough to protect him from liability under the ADA, even if the employer would otherwise qualify as an expert on the subject.[86] The employer can escape liability only by showing that his beliefs are reasonable in light of the available medical evidence, or are otherwise supported by a credible scientific basis.[87] In addition, "patronizing assumptions, generalized fears, and speculative or remote risks" are per se insufficient to prove that such a risk or direct threat exists.[88]

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81. *Id.* at 641. Central to the Court's decision was a finding that Abbott was *currently* disabled, even though she did not have any outward symptoms of HIV at the time of the discrimination. *See id.* at 636, 641. This required proof that she was substantially limited in a major life activity. *See id.* If she was not substantially limited, Abbott would not have been within the ADA's definition of disability, and the dentist Bragdon would not be liable for disability discrimination. *See id.* For a discussion of whether persons like Abbott *should* be covered by the ADA, see discussion *infra* Part III.

82. The specific statutory provision at issue in this case prohibits discrimination in the provision of services to customers and business patrons, rather than employment discrimination It provides, in pertinent part, that "[n]o individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation by any person who...operates a place of public accommodation." *Id.* at 629 (quoting 42 U.S.C. § 12182(a) (1994)).

83. *See id.* at 649. The Court further noted the "importance of prohibiting discrimination against individuals with disabilities while protecting others from significant health and safety risks, resulting...from a contagious disease." *Id.* (commenting that because few things in life are risk-free, the ADA limitations must be strictly construed to allow exclusions only for persons with disabilities that present significant risks).

84. *Id.* (citing Sch. Bd. of Nassau County v. Arline, 480 U.S. 273, 288 (1987)).

85. *Id.* at 650.

86. *See id.* at 649. In *Bragdon*, the defendant argued that his judgment as to the type and severity of risk presented by Abbott's HIV infection should be given "special deference" because he was a health care provider. *Id.* The Court denied his request and, instead, noted that, regardless of his profession or knowledge, his beliefs must be considered in relation to the objective reasonableness of his actions. *See id.* at 650.

87. *See id.* at 650 (citing W. KEETON ET AL., PROSSER AND KEETON ON LAW OF TORTS § 32, at 187 (5th ed. 1984)).

88. Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 72 (citing 29 C.F.R. § 1630.2(r) (1998)).

From the employer's perspective, determining whether an employee's disability[89] creates a substantial risk or direct threat of harm to others is difficult. Even if the disability is noted only by a genetic misspelling or defect and is not otherwise apparent, the employer must consider the following before denying employment: the employee's essential job functions, an individual determination of the employee's fitness for the particular position, the possible accommodations for the disability, and the nature of the remaining risk.[90]

Where the employee would be exposed to workplace toxins and other dangerous materials, the employer is justified, under the above factors, in excluding the individual from employment in that particular field or position.[91] Under those circumstances, the exposure could not be avoided, and the remaining risk to the employee of continued exposure in that capacity would be large.[92] For example, where the employee is genetically predisposed to heavy metal poisoning, he may be lawfully excluded from employment in an area in which he would be

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89. This assumes, *arguendo*, that a person with a genetic malady has a disability. This is not always the case. *See* discussion *infra* Part III.

90. *See* Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 72–73. In addition, the Supreme Court noted in *Sutton v. United Airlines* that the "ADA allows employers to prefer some physical attributes over others, so long as those attributes do not rise to the level of substantially limiting impairments." 527 U.S. 471, 473 (1999). The employer's determination and judgment of the essential functions of the job is generally given judicial deference. *See* Mole v. Buckhorn Rubber Prods., Inc., 165 F.3d 1212, 1217 (8th Cir. 1999). Further, it is "the responsibility of the individual with the disability to inform the employer that an accommodation is needed" and courts may require the employee to assist the employer in making such accommodations. *Id.* (quoting Wallin v. Minn. Dept. of Corr., 153 F.3d 681, 689 (8th Cir. 1998) (citation omitted)). The employee cannot "expect the employer to read [her] mind and know [that she] secretly wanted a particular accommodation and [then] sue the employer for not providing it." *Id.* at 1218 (quoting Ferry v. Roosevelt Bank, 883 F. Supp. 435, 441 (E.D. Mo. 1995)).

91. Genetic screening in this context promotes the individual employee's health and safety by removing him from those areas to which he is most sensitive. In 1990, most companies agreed that individuals who are genetically predisposed to disease or are otherwise genetically sensitive to materials and toxins should not be placed in positions that are more likely to encounter these known risks. *See* MEDICAL MONITORING, *supra* note 30, at 41 (reporting that nearly fifty-eight percent of companies responding to the surveys felt that an individual with genetic susceptibility should be excluded from positions of known risk; an additional thirty-five percent of employers felt that the employee should be able to take the position, but only after that employee knowingly waives corporate liability for potential injuries).

92. Although the employer is justified in excluding the employee, he must sustain a high burden of proof to escape ADA liability. The employer must show a high probability of substantial harm if the employee continues to work in that environment. *See* Kimberlin & Headley, *supra* note 73, at 612. In addition, the employer must prove that he considered each of the *School Board of Nassau County v. Arline* factors before making a decision to exclude the employee. *See id.* (citing Bombrys v. City of Toledo, 849 F. Supp. 1210, 1216 (N.D. Ohio 1993); *see also supra* notes 70, 77 and accompanying text. Courts are skeptical about blanket exclusions for a specific disability. *See* Kimberlin & Headley, *supra* note 73, at 612. For a table of factors affecting a gene's susceptibility to environmental and workplace agents, see GENETIC MONITORING, *supra* note 8 at 13 tbl. 1–1.

exposed to heavy concentrations of lead.[93] This is particularly true where the employer is unable to remove the toxin, either because the work environment depends upon its presence or because it is impossible to remove.[94] When making such a determination, however, the employer must act within the limited range of exclusionary criteria as described by Congress during the ADA's approval.[95] According to the House Report, "if the examining physician [finds that there would be a] high probability of substantial harm if the candidate performed the particular functions of the job" the employer can lawfully refuse to employ him.[96] The assessment of whether there is such a high probability of substantial harm should be based on "valid medical analysis," and employers should ensure that they are relying upon "testing measures that actually and reliably predict the substantial, imminent degree of harm required."[97]

Once an employer makes a valid determination that the employee is not fit for the offered position, the excluded employee is no longer covered under the Supreme Court's narrow interpretation of the ADA unless he is incapable of performing any other job in the company.[98] For example, a person genetically predisposed to epileptic seizures may be excluded from working as an airline pilot or truck driver if that person is able to perform other jobs or duties within the organization and is thus not substantially limited from the major life activity of working.[99] "To be substantially limited in the major life activity of working,...one

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93. *See, e.g.*, Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 74 (providing examples of employees that may be excluded because their disability would represent a serious risk in that particular environment).

94. However, if the toxin is prevalent in the workplace and represents a danger to all employees, regardless of their individual genetic susceptibilities, the employer may be violating OSHA health standards, which require that employers provide a reasonably safe work environment. *See* discussion *supra* Part II.C. For a general discussion of the OSHA standards and their relation to genetic testing in the workplace, see generally Kaufmann, *supra* note 10, at 425–29.

95. *See* Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 75. In addition to the factors required by both the EEOC and *School Board of Nassau County v. Arline*, Rothstein notes that employers must consider the following factors: "the latency of the condition, the reversibility or treatability of the condition, and the absolute and relative risk." *Id.* at 74–75.

96. HOUSE EDUC. AND LABOR COMM., H.R. Rep. No. 485, at 73 (1990), *reprinted in* 1990 U.S.C.C.A.N. 303, 355–56.

97. *Id.* The House Report has been one of the focal points of the genetic discrimination debate. Commentators argue that because the current genetic tests are neither fully reliable nor conclusive of future disorders or illnesses, employers should not, as a matter of policy, be permitted to use the results in any way. *See* Kaufmann *supra* note 10, at 400; Miller, *supra* note 41, at 231–34; Deyerle, *supra* note 3, at 551–52.

98. *See* Murphy v. United Parcel Serv., Inc., 527 U.S. 516, 523 (1999) (noting that an individual must be "regarded as precluded from more than a particular job" to be substantially limited in the major life activity of working. Once the individual is substantially limited in a major life activity, the ADA provides him protection against employment discrimination.).

99. *See* Sutton v. United Air Lines, Inc., 527 U.S. 471, 491 (1999) (noting that an employer is free to choose between potential employees based on limiting

must be precluded from more than one particular job, a specialized job, or particular job of choice."[100] Rather, he must be precluded from a broad class of jobs within a particular geographical area.[101] Courts are less likely to uphold the employer's decision to exclude the individual, despite the employer's ability to define the job's qualifications, where the employee's condition could be treated or reversed by medication and therapy.[102] If the aforementioned employee could take medication that would reduce the occurrence of his epileptic seizures, and thus decrease the employee's risk to both himself and others while performing essential job functions, any exclusion would violate the ADA. If the employee refuses to accept medical attention, however, the employer may be justified in removing the employee from his position because of the substantial risk or direct threat that his untreated condition may pose to others.[103] As one court has noted, in the face of the employer's and employee's competing interests, "[w]here the lives of [others] are at stake, public policy may dictate exclusion if there is any doubt concerning an individual's ability to serve such [people]."[104]

E. Testing for Productivity and Ability to Perform Essential Job Functions

Beyond employer compliance with health and safety requirements, employers should be permitted to use genetic test results to ensure that employees are able to efficiently complete the duties and functions that future positions will require. As discussed above, the ADA permits employers to conduct medical examinations of current employees if they are "job-related and consistent with

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characteristics, including height and build, that would make one employee more ideally suited for the position than the other).

100. *Id.* at 492.

101. *See id.* at 491–92.

102. *See* UNDERSTANDING GENE TESTING, *supra* note 6, *at* http://www.accessexcellence.org/AE/AEPC/NIH/, What additional benefits can be expected from gene testing? (noting that gene therapy can "thwart disease"); *id. at* http://www.accessexcellence.org/AE/AEPC/NIH/, What are the limitations of gene testing? (discussing the general benefits to genetic testing, including treatments); *see also* MARK A. ROTHSTEIN, MEDICAL SCREENING AND THE EMPLOYEE HEALTH COST CRISES 132–36 (1989) [hereinafter MEDICAL SCREENING].

103. In addition, employers are not required to give disabled employees a second or third chance that would not be given to a non-disabled employee. In *Siefken v. Village of Arlington Heights*, the employer did not violate the ADA when he discharged an insulin-dependent police officer. No. 94 C24, 1994 WL 505414 (N.D. Ill. Sept. 14, 1994), *aff'd*, 65 F.3d 664 (7th Cir. 1995). The officer suffered a hypoglycemic reaction while driving his police car and began driving erratically at high rates of speed through town. *See id.* at *2–*3. The court held that the employee's failure to control his disability represented an actual, rather than potential, danger to himself and others. *See id.* The employer was justified in releasing him and for not allowing him a second chance to control his disability. *See id.* On appeal, the Seventh Circuit affirmed. *See Siefken*, 65 F.3d at 664.

104. Ross v. Beaumont Hosp., 687 F. Supp. 1115, 1121 (E.D. Mich. 1988) (quoting Judith W. Wenger, *The Anti-Discrimination Model Reconsidered: Ensuring Equal Opportunity Without Respect to Handicap Under § 504 of the Rehabilitation Act of 1973*, 69 CORNELL L. REV. 401, 490 (1984)).

business necessity."[105] Additionally, employers may make inquiries into the ability of an employee to perform job-related functions.[106] The ADA does not directly contemplate the use of genetic testing in the workplace, but if genetic tests and screenings are "directly related to qualifications for doing the task," they are presumably acceptable under the Act.[107] Thus, an employee who has been denied a job because he lacks the necessary qualifications for that position may not file a claim for discrimination under the ADA anti-discrimination provisions.[108]

The ADA further permits employers to establish job-related qualifications and criteria, including work experience, demonstrated ability, education, health, and safety.[109] In addition, employers may create minimum physical and mental standards necessary for job performance.[110] However, the standards cannot be so high or specific that they will screen out, or tend to screen out, individuals based solely upon their disabilities, unless the standard is job-related and consistent with a business necessity.[111] Furthermore, an employer cannot exclude an individual if he can satisfactorily complete the required job functions with reasonable accommodation.[112] For example, a taxicab company can

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105. 42 U.S.C. § 12112(d)(4)(A) (1994); 29 C.F.R. § 1630.14(c) (1997).

106. *See* 42 U.S.C. § 12112(d)(4)(B); 29 C.F.R. § 1630.14(d).

107. Charles B. Gurd, *Whether a Genetic Defect Is a Disability Under the Americans with Disabilities Act: Preventing Genetic Discrimination by Employers*, 1 ANNALS HEALTH L. 107, 110 (1992) (quoting Peter T. Rowley, *Genetic Discrimination: Rights and Responsibilities of Tester and Testee: Summary of a Workshop Sponsored by the Social Issues Committee, American Society for Human Genetics, November 2, 1986*, 43 AM. J. HUM. GENETICS 105, 105 (1988)).

108. This assumes that the medical examinations and stated job functions were consistent with business necessity. A test or list of selection criteria that excludes an individual with a disability solely because of that disability, and does not specifically relate to the essential job functions, is not consistent with the aforementioned business necessity. *See* Kimberlin & Headley, *supra* note 73, at 610. In addition, this argument assumes that the applicant was denied a position for some reason other than his disability. *See id.* at 610–11.

109. *See* DISABILITY-RELATED QUESTIONS, *supra* note 49, at ¶ 5.

110. *See id.*

111. *See* 29 C.F.R. § 1630.10 (1997). In addition, the job requirements must be related to essential job functions and the employer cannot judge the applicant's ability to perform nonessential or incidental tasks, if enforcing that requirement would tend to eliminate a disabled person. *See* Kimberlin & Headley, *supra* note 73, at 611. For example, an employer cannot create a requirement that all typists in the company have perfect hearing if answering the telephones is not an essential job function of the typist. *See id.* Thus, an employer's failure to hire an applicant who has difficulty hearing in favor of an applicant with perfect hearing, even though both applicants are equally qualified, is a violation of the ADA. *See id.*

112. *See, e.g.*, Dey v. Milwaukee Forge, 957 F. Supp 1043, 1050 (E.D. Wis. 1996) (noting that the ADA is not a method of employment insurance and an employer is not required to make all accommodations that the employee so desires); *see also* Kimberlin & Headley, *supra* note 73, at 609. In order to be obligated under the ADA, however, the accommodation must not impose undue hardship on the employer or the employer's business. For more information about the reasonable accommodations that an employer is expected to make, see *infra* notes 147–60 and accompanying text.

require all employees who drive cabs to have a driver's license. Such a requirement is necessary and substantially related to the position. In contrast, the same employer cannot implement a rule that prohibits all employees who have difficulty hearing from driving the company cabs. This rule would be based solely upon the employee's disability and the misconception that a hearing impaired employee cannot effectively complete his job functions, even with the help of a hearing aid.

Employers are not required, however, to adopt reduced production standards, or to hire incompetent workers, to accommodate disabled employees under the ADA.[113] In *Milton v. Scrivner, Inc.*,[114] the Tenth Circuit held that a standard requiring grocery warehouse workers to move items more quickly was appropriate, even though it effectively screened out disabled employees.[115] According to the court, the standards were justified as "job-related and consistent with business necessity" because they were implemented to improve employee efficiency and productivity, and thus the employer's "competitiveness in the marketplace."[116]

Employers have an obvious and substantial interest in ensuring that its employees are fit to perform the essential functions of the position that they fill. Repeated employee illnesses represent a significant cost to employers through increased absenteeism and decreased productivity per worker.[117] In addition, employees with a high propensity or predisposition for illnesses and disease have a higher turnover rate, which creates considerable costs to the employer in both searching for and interviewing new employees and in providing new employees with job training.[118] In recognition of these interests, courts have supported the employer's use of medical testing when the examination represents a business necessity. For example, in *Yin v. California*,[119] an employee was forced to undergo a medical examination after she missed nearly four months of work in one year.[120] The employer argued the absenteeism, which, for a period of five straight years, was nearly six times the sick leave used by other employees, was costing the company money in both wages and decreased productivity.[121] The Ninth Circuit held that "when health problems have had a substantial and injurious impact on an employee's job performance," an employer is justified in submitting an employee to medical testing to ensure her ability to effectively perform her job duties.[122] This is so, "even if the examination...disclose[s] whether the employee is disabled or

113. *See* Kimberlin & Headley, *supra* note 73, at 610.
114. 53 F.3d 1118 (10th Cir. 1995).
115. *See id.* at 1120.
116. *Id.* at 1124.
117. *See* DAVID SUZUKI & PETER KNUDTSON, GENETHICS: THE CLASH BETWEEN THE NEW GENETICS AND HUMAN VALUES 161 (1989).
118. *See id.*
119. 95 F.3d 864 (9th Cir. 1996).
120. *See id.* at 867.
121. *See id.*
122. *Id.* at 868.

the extent of any [known] disability."[123] Once the test is completed, however, the employer must keep all information and test results confidential and separated from the employer's personnel file, regardless of how the information will be used.[124]

F. Using Genetic Testing as an Effort to Achieve a Cost-Effective Workplace

In addition to complying with federal health and safety requirements and ensuring adequate workplace production levels, employers could require current and prospective employees to undergo medical examinations, including genetic testing, in an effort to reduce the costs associated with their employment. Although employers have a legitimate interest in limiting workplace costs, this defense to genetic discrimination is not well received and, in the context of employee health insurance, may violate the ADA.[125]

An employer should be permitted to test employees when its purpose is something other than cost management, however. Under the ADA, employers are required to provide disabled employees with reasonable accommodations to assist them in performing the essential functions of their job.[126] Nevertheless, if providing such support would place an unusual burden, cost or otherwise, on the employer, the ADA does not require it to provide the accommodations.[127] Further, the employer is permitted under the Act to choose not to hire a disabled person requiring *unreasonable* accommodations.[128] The employer must know the nature and extent of the employee's disabilities, including genetic dysfunctions or disorders, to evaluate the additional cost of hiring the employee and to provide that person with assistance in his position.[129] Denying the employer the right of access to and use of this information will hinder its ability to make uninhibited and informed decisions regarding its business. To avoid widespread discrimination, however, the test results should be used to deny employment only to those

123. *Id.*

124. *See* 42 U.S.C. § 12112(d)(4)(C) (1994); *see also* Kimberlin & Headley, *supra* note 73, at 618 (outlining the status of the ADA at the end of 1999 and an employer's duties under both the Act itself and different courts' interpretations of the Act).

125. The debate on health care insurance has received much more attention from lawmakers than the debate on genetic discrimination and, as a result, is more likely to provide protection in the short term for asymptomatic individuals than employment discrimination laws. *See* Deyerle, *supra* note 3, at 578–80.

126. *See* 42 U.S.C. § 12112(b)(5)(A).

127. *See id.*

128. *See id.* If no reasonable accommodation is possible, the disabled individual is no longer qualified for the position and is not covered under the ADA. *See* § 12112(a) (defining the general rule of discrimination under the ADA).

129. *See* Kimberlin & Headley, *supra* note 73, at 636–37. Additionally, an employer is not expected to guess which employees are disabled from any surrounding circumstances, including direct conversations with the employees. *See, e.g.*, Larson v. Koch Refining Co., 920 F. Supp. 1000, 1005–06 (D. Minn. 1996) (holding that an employer was not required to provide alcohol counseling to an employee who had previously denied being an alcoholic, but told his employer that he was thrown out of his house because he had a drinking problem).

disabled applicants who are unable to perform the job functions with reasonable accommodations, or to those who require accommodations that are so unreasonable as to create a large financial burden on the employer.[130]

One of the greatest costs that an employer will incur in the workplace is the cost of employee health insurance. In 1992, sixty-eight percent of all Americans were covered by insurance plans provided by their employer.[131] Although smaller companies tend to purchase insurance from commercial providers, a growing number of employers, particularly large companies with a broad employee base, are self-insured.[132] Under the self-insurance plans, the employer directly assumes responsibility for the employee's health care expenses.[133] As the cost of health care rapidly increases, however, an employer may not have the financial resources available to provide adequate insurance for its employees.[134] In this situation, an employer may be faced with difficult choices: eliminate all health insurance; eliminate only that for specific, more expensive, health conditions; or continue full health care coverage. If the employer chooses to continue to provide full health care coverage for its employees, it may be risking bankruptcy. Under these circumstances, the employer's choice is clear, particularly when insurance costs are rising between ten and twenty percent per year.[135]

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130. For more information about the employer's duty to provide reasonable accommodations if they do not create an undue burden, see *infra* notes 161–64 and accompanying text.

131. *See* Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 65 (citing S. Rep. No. 360, at 20, 100th Cong. (1st Sess. 1988)). Rothstein further notes that eighty-five to ninety percent of all Americans are covered by group health insurance plans. *See id.*

132. *See id.* (citing A. Foster Higgins, *Health Care Benefits Survey 1990*, MED. BENEFITS, Feb. 28, 1991, at 23 (stating that sixty-five percent of employers with 1,000 or more employees self-fund for health plans)).

133. *See id.* at 65–66. Employers tend to rely on the self-funding method because it is cheaper. First, employers will not pay the high premiums of the commercial insurance providers, which would pay for expenses in the relatively unlikely event that an injury would occur. *See id.* Second, most self-insured plans are not subject to state insurance laws and are not as expensive to administer. *See id.* As the cost of health care rises, however, it is not clear whether employers will be as willing to provide employees with high levels of health care insurance. *See* MEDICAL SCREENING, *supra* note 102, at 4 (discussing how medical screening procedures will help employers control health care costs).

134. As a result, employers are likely to increase the scope of health insurance screening for employees. *See* Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 27–30. In addition, employers may restrict the employment of certain individuals who have historically been high consumers of insurance benefits, "such as cigarette smokers, people infected with HIV, and even people with high cholesterol levels." *Id.* at 29.

135. *See id.* (citing Milt Freudenheim, *Health Care a Growing Burden*, N.Y. TIMES, Jan. 29, 1991, at D1). In the period between 1985 and 1991, annual employer health care costs jumped $1,724 to $3,605 per employee. *See id.* (citing Milt Freudenheim, *Health Costs Up 12.1% Last Year*, N.Y. TIMES, Jan. 28, 1992, at D2).

Section 501(c) of the ADA[136] provides that employers are not prohibited from treating employees differently in the provision of health care insurance.[137] In particular, employers are permitted to charge higher rates for the coverage of certain conditions, eliminate coverage for certain conditions completely, or limit coverage of certain conditions.[138] Beyond that, employers are free to underwrite, classify, and administer risks of insurance liability, particularly where the employer is self-insured and will directly bear the burden of high health care costs.[139] It is clear, however, that an employer is not permitted to "deny insurance coverage completely to an individual based on [that] person's diagnosis or disability."[140] For example, an employer may choose not to insure against the risk of breast cancer because the cancer treatments are too expensive.[141] However, it cannot deny breast cancer coverage only to those persons genetically predisposed to breast cancer and offer it to all other employees.[142] In addition, an employer may not restrict health care coverage to only those persons who have a known disability at the time the plan is implemented, while offering coverage to other non-disabled employees.[143]

Although the ADA does allow some level of discrimination among workers in this area, employers are clearly not free to use insurance liability and costs as a "subterfuge for invidious discrimination."[144] Any "evasion of the...anti-discrimination [provisions of the ADA], whether malicious, purposeful, or inadvertent, will be unlawful."[145]

In addition to insurance costs, employers incur specific and unique expenses for disabled employees in the workplace. With respect to these costs, both the courts and Congress have approved of employers' attempts to limit these costs under certain circumstances. According to the ADA's mandate, employers are required to provide otherwise qualified employees with reasonable accommodations so that they may sufficiently perform their essential job functions.[146] A reasonable accommodation is any modification or adjustment in a

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136. 42 U.S.C. § 12201(C)(1) (1994).

137. *See id.*

138. *See id.*; *see also* Gostin, *supra* note 34, at 135–37; Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 79–81.

139. *See* Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 79 (citing 42 U.S.C. § 12201(c)(1)).

140. *See id.* (quoting SENATE COMM. ON LABOR AND HUMAN RES., THE AMERICANS WITH DISABILITIES ACT OF 1989, S. Rep. No. 116, at 29, 101st Cong. (1st Sess. 1989)).

141. *See id.* at 79–80.

142. *Cf. id.*

143. *See id.*

144. Gostin, *supra* note 34, at 136 (citing 42 U.S.C. § 12201(c) (1994)).

145. *Id.* (citing 136 CONG. REC. H4614, 4623 (1990) (statement of Rep. Hawkins)). In addition, employers may not deny an applicant employment simply because either the applicant's disability is not covered under the employee health care plan or the disability would be too expensive to treat. *See id.*

146. *See* 42 U.S.C. § 12112(b)(5)(A) (1994). As a side note, the employer is not required to guess the employee's disability from the surrounding circumstances. If the

job that will provide an employee with an equal employment opportunity and allow him to work in his particular position.[147] According to the ADA, reasonable accommodations can include any of the following:

> (1) making existing facilities used by employees readily accessible to and usable by individuals with disabilities; (2) job restructuring; (3) part-time or modified work schedules; (4) reassigning a disabled individual to a vacant position; (5) acquiring or modifying equipment or devices; (6) appropriately adjusting or modifying examinations, training materials, or policies; and (7) providing qualified readers or interpreters.[148]

An employer has an affirmative responsibility to notify job applicants and current employees of the ADA's reasonable accommodation requirement.[149] Furthermore, the employer's obligation to provide a reasonable accommodation is a continuing obligation that can arise any time a person's disability, employment position, or essential job functions of a current position change.[150]

Although the duty to accommodate a disabled employee appears broad, there are some important limitations. In 1999, the Equal Employment Opportunity Commission (EEOC) published its Guidance regarding reasonable accommodation for employees in response to employers' frequent questions.[151] According to that Guidance, a disabled person is not entitled to priority in hiring and reassignment simply because he is disabled.[152] However, if providing reasonable accommodations for the individual would create undue hardship[153] in one position, and the employee could perform a different job with or without reasonable accommodation, the employer must give preference to the disabled employee in the transfer.[154] This is so even if another candidate, whether disabled

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disability is not made apparent in some fashion, the employer is not responsible for making the accommodation. *See* Kimberlin & Headley, *supra* note 73, at 632–33; *see also supra* note 129 and accompanying text.

147. *See* 29 C.F.R. § 1630.2(o) (1997).

148. 42 U.S.C. § 12111(9) (1994).

149. *See* Kimberlin & Headley, *supra* note 73, at 633 (citing 42 U.S.C. § 12115 (1994)).

150. *See id.* at 629.

151. *See id.* at 627–28 (citing EEOC, GUIDANCE ON REASONABLE ACCOMMODATION AND UNDUE HARDSHIP UNDER THE AMERICANS WITH DISABILITIES ACT (1999) [hereinafter GUIDANCE ON REASONABLE ACCOMMODATION]).

152. *See id.* at 628; *see also* Daugherty v. City of El Paso 56 F.3d 695, 700 (5th Cir. 1995) (finding that the ADA "prohibits employment discrimination against qualified individuals with disabilities, no more and no less"). The ADA expressly prohibits discrimination in the workplace, and an employer is not justified in removing a non-disabled employee from his position to accommodate a disabled individual. *See Daugherty*, 56 F.3d at 700.

153. For a discussion of what constitutes an undue hardship, see *infra* notes 160–64 and accompanying text.

154. *See* Kimberlin & Headley, *supra* note 73, at 628 (citing GUIDANCE ON REASONABLE ACCOMMODATION, *supra* note 151, at 44).

or not, would be better qualified for the position.[155] The employer can, however, enforce all rules of employee conduct, regardless of the employee's disability, provided the rules are not specifically aimed against the individual's disability and are grounded in a business necessity.[156] For example, an employer does not have to tolerate violence, profanity, or tardiness, even if the employee insists that such behavior is directly related to his disability.[157] Additionally, an employer is not required to accept lower standards of production, either in quantity or quality, to accommodate the disabled.[158] An employer does not have to restructure or adjust a job to accommodate a disabled worker if it can prove that such a modification would fundamentally alter the essential functions of the position.[159]

The ADA does not require an employer to reasonably accommodate a disabled person if it would be required to undergo undue hardship while making such accommodations.[160] An "undue hardship" is defined as any "action requiring significant difficulty or expense."[161] Although the determination of whether a particular accommodation is reasonable is made on a case-by-case basis, courts tend to interpret this term broadly.[162] This is particularly true where the employer

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155. *See id.*

156. *See id.* (citing GUIDANCE ON REASONABLE ACCOMMODATION, *supra* note 151, at 47).

157. *See id.* at 628–29.

158. *See id.* This argument also applies to the employer's ability to hire only those workers who are qualified to perform a certain job with specific production requirements. However, the production requirements must have a business necessity to be valid. *See, e.g.*, Milton v. Scrivner, Inc., 53 F.3d 1118, 1124 (10th Cir. 1995) (holding that an employer has a right to fire an employee who cannot meet the productivity standards, even if the standards have the effect of discriminating against the disabled). For more information on this topic, see *supra* Part II.E.

159. *See* Misek-Falkoff v. IBM Corp., 854 F. Supp. 215, 226–27 n.13 (S.D.N.Y. 1994) (holding that an employee's request to miss work at unpredictable times because of a mental disorder was unreasonable because her job required substantial interaction with other employees in order to meet deadlines); *see also* Kimberlin & Headley, *supra* note 73, at 630–32.

160. *See* 42 U.S.C. § 12112(b)(5)(A) (1994).

161. 42 U.S.C. § 12111(10)(A) (1994). Before determining whether an accommodation would create an undue hardship, an employer must consider the following factors in the EEOC regulations:

> (1) The nature and net cost of the accommodation needed; (2) the overall financial resources of the facility...; (3) the number of persons employed at the facility; (4) the effect on expenses and resources and the impact upon the operation of the facilities; (5) the overall financial resources of the covered entity; (6) the overall size of the business and the number of its employees; (7) the number, type, and location of its facilities; (8) the type of operation or operations of the covered entity; (9) the composition, structure, and function of the workforce; (10) the geographic separateness of the relevant facilities; and (11) the administrative or fiscal relationship of the facility...to the covered entity.

29 C.F.R. § 1630.2(p)(2) (1997).

162. *See* Kimberlin & Headley, *supra* note 73, at 637.

is relatively small or has few resources from which to make the accommodation.[163] Generally, a large employer will be expected to expend greater effort and expense in making the accommodation because it is unlikely that such accommodations will be "unduly costly, extensive, or...would fundamentally alter the nature of the operation of the business."[164] Thus, an employer is not required to provide employees with accommodations for their disabilities if the accommodation would create some financial hardship.

III. EXPANDING THE ADA'S DEFINITION OF DISABILITY TO INCLUDE POTENTIAL GENETIC DISORDERS AND DISEASES VIOLATES THE PURPOSE AND INTENT OF THE ADA

The continued growth and improvement of the Human Genome Project, including increased access to genetic testing facilities and decreased test administration costs, has prompted widespread use of gene testing.[165] Although developed primarily for use by physicians in diagnosing a patient's ailments, employers and insurance companies also use genetic information to make employment and coverage decisions.[166] Because genetic testing will provide for the discovery of "subtle...variations among individuals at the molecular level,"[167] experts and state legislatures are concerned that individuals with genetic defects and disorders will face widespread genetic discrimination, particularly while seeking employment.[168] These groups fear that such discrimination will discourage

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163. *See id.*

164. *Id.* (citing 29 C.F.R. § 1630.2(p)).

165. *See* Miller, *supra* note 41, at 226 (noting that the increased use of genetic testing will increase the availability of genetic information to physicians, insurance companies, employers and members of the public). A recent article in *Barron's* noted that Congress introduced a bill to ban the use of genetic tests by health insurers. *See* Andrew Bary, *Death and No Taxes?*, BARRON'S, Feb. 19, 2001, at 17. The bill would mirror state legislation that was passed largely because of the widespread fear that individuals will not volunteer for genetic testing because they will risk losing current levels of insurance coverage and premiums. *See id.* This fear is largely unfounded, however.

166. *See* Kaufmann, *supra* note 10, at 394. The use of genetic testing in employment decisions nearly doubled between 1982 and 1989. *See* GENETIC MONITORING, *supra* note 8, at 176–78 (noting that the increase could be attributed to differences in the wording of the questions in the two surveys). In addition, a 1989 study by Northwestern National Life Insurance Company revealed that fifteen percent of the companies surveyed would consider using genetic testing to make employment decisions by the year 2000. *See* Gostin, *supra* note 34, at 116 (citing Brownlee & Silberner, *The Assurances of Genes*, U.S. NEWS & WORLD REP., July 23, 1990, at 57). Most companies surveyed indicated that the actual use of genetic testing will depend largely upon its cost-effectiveness. *See* MEDICAL MONITORING, *supra* note 30, at 5. Corporate officials generally agree that genetic monitoring and testing is not yet cost-effective. *See id.*

167. Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 25.

168. Genetic discrimination has been defined as "discrimination against an individual or a member of an individual's family solely on the basis of that individual's genotype." Kaufmann, *supra* note 10, at 400–01 (quoting SUSAN MALAMATE VAZAKAS, GENETIC DISCRIMINATION AND THE AMERICANS WITH DISABILITIES ACT 24 (1993)). For a list

individuals from voluntarily obtaining genetic tests, and the most important benefits from the Human Genome Project's technology will be lost.[169] As a result, commentators have suggested that the Americans with Disabilities Act (ADA) should be expanded to provide protection for asymptomatic individuals with genetic disorders and maladies.[170] Although there are a number of persuasive reasons to discourage such discrimination under the ADA, the Act cannot be expanded without violating its legislative intent.[171] Furthermore, expanding the definition of disability beyond its practical limits would eviscerate the original purpose of the ADA, which was to protect the disabled minority from discrimination by the majority.[172] Finally, the current language of the ADA cannot reasonably be interpreted to include such persons when they have only a probability, rather than a certainty, of contracting a genetic disease in the future.[173]

A. Expanding the ADA Would Dilute Its Purpose and Impair Its Strength

Expanding the definition of disability beyond its current limits to include genetic disorders would substantially dilute the purpose behind the ADA and impair the strength of its protections.[174] Allowing all asymptomatic individuals to claim protection under the "regarded as" prong of the ADA creates the potential

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of states that have passed legislation with regard to the use of genetic information, see *supra* note 21 and accompanying text.

169. Thirteen percent of individuals with one or more relatives with a genetic disorder surveyed in a recent study believed that they were victims of genetic discrimination and were either denied jobs or fired because of their family genetic history. *See* Tara L. Rachinsky, Comment, *Genetic Testing: Toward a Comprehensive Policy to Prevent Genetic Discrimination in the Workplace*, 2 U. PA. J. LAB. & EMP. L. 575, 583 (2000) (citing E. Virginia Lapham et al., *Genetic Discrimination: Perspectives of Consumers*, 274 SCIENCE 621, 621–24 (1996)). Seventeen percent of individuals surveyed in the same study did not reveal the test results to their employers, and an additional ten percent chose not to undergo testing at all, fearing that they would face employment discrimination. *See id.* A 1995 Georgetown University study found that over eighty-five percent of the 332 people surveyed were concerned about discriminatory uses of genetic testing results by employers and insurance companies. *See* Miller, *supra* note 41, at 233 (citing E. Virginia Lapham et al., *Genetic Discrimination: Perspectives of Consumers*, 274 SCIENCE 621, 621–24 (1996)).

170. *See* sources cited *infra* note 188.

171. *See infra* Part III.B.

172. This is particularly true because genetic deformities are common in today's society. *See infra* Part III.A.

173. *See infra* Part III.C.

174. The Supreme Court is currently limiting the scope of the ADA, particularly the definition of "disability," in recognition of the fact that the ADA's protections are being spread too thin. *See, e.g.*, Sutton v. United Airlines, Inc., 527 U.S. 471, 488–89 (1999) (holding that a disability under the Act must be determined with reference to corrective measures; if plaintiff is not substantially limited in a major life activity with a corrective measure, she is not covered by the ADA). The Court's decisions since the ADA's passage in 1990 imply that employers will usually prevail in ADA lawsuits and employees will have little success in demonstrating disability discrimination. *See* Kimberlin & Headley, *supra* note 73, at 582.

for millions of new persons to join the protected class.[175] The ADA was not created for this purpose. Rather, the ADA was created to protect the disabled minority from non-disabled majority.[176] The definition of a disability is crafted very narrowly, and to sustain a claim for discrimination, a plaintiff must show that (1) he has a physical or mental impairment that (2) substantially limits (3) one or more major life activities.[177] The most difficult element to overcome,[178] "substantial limitation" in a major life activity, has been interpreted to mean that a person must show that he is "presently—not potentially or hypothetically—substantially limited."[179] By not requiring that an individual prove this element, the

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175. *See* Reginald Rhein, *Federal Disability Law Bans Genetic Discrimination*, BIOTECH. NEWSWATCH, May 1, 1995, at 1 (quoting Paul R. Billings, geneticist for the Palo Alto Veterans Hospital). One geneticist has commented on this subject:

> The ADA was constructed for people with basically phenotypic disabilities.... We are now diluting those people's interests with a large number of people who conceivably will argue that they are being perceived of as disabled, even though they only have a gene for colon cancer,...or whatever the gene of the week is.

Id.

176. *See* 42 U.S.C. § 12101(a)(7) (1995) (noting that "individuals with disabilities are a discrete and insular minority"); *see also id.* § 12101(b)(1) (stating that the purpose of the ADA was to "provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities"); EEOC, COMPLIANCE MANUAL SECTION ON THE DEFINITION OF DISABILITY, ADDENDUM § 902.1(a) (2000) [hereinafter ADDENDUM] (noting that the definition of disability in the ADA is very narrow and may differ from other uses of the term "disability," including other laws drafted to cure discrimination in other areas).

177. *See* 42 U.S.C. § 12102(2)(A) (1995). Even if an individual is not currently disabled, he may sustain a claim for discrimination on the basis of a disability if he can prove that his employer regards him as being disabled within the statutory definition in the ADA. *See id.* § 12102(2)(C). Thus, he would still have to prove that his employer regards him as being *currently* substantially limited in a major life activity, even though the individual is only at risk for contracting a disease at some point in the future. *See id.*; 29 C.F.R § 1630.2(*l*) (1997).

178. This element is difficult to overcome because it relies upon a number of narrow definitions combined with a high standard of proof. For example, according to the EEOC, an impairment is not substantially limiting unless the individual is restricted as "compared to the ability of the average person in the general population to perform the activity." ADDENDUM, *supra* note 176, § 902.4(c). *Compare id.* § 902.4(c)(1) Example 1 (providing that an individual who is unable to walk eleven consecutive miles due to a knee injury is not disabled because the average person is unable to walk eleven miles) *with id.* § 902.4(c)(1) Example 2 (providing that an individual who is unable to walk short distances due to sickle cell anemia is disabled because the average person is able to walk short distances). The following factors are used to determine whether an individual is substantially limited within the meaning of the ADA: "the nature and severity of the impairment; the duration or expected duration of the impairment; and the permanent or long term impact, or the *expected* permanent or long term impact of or resulting from the impairment." *Id.* § 902.4(b)(2) (citing 29 C.F.R. § 1630.2(j)) (emphasis added).

179. *Sutton*, 527 U.S. at 482. Not every impairment has a substantial impact on a personal life, and "[i]f there is no showing that the impairment *significantly* restricts a

ADA would extend protection to nearly all individuals with an impairment, no matter how severe.[180]

A disabled minority class cannot be defined so broadly as to include a majority of working individuals without losing the effectiveness of the protection for the minority. Genetic deformities are common in today's society, and nearly every individual either has, or has the potential to carry, genetic deformities and misspellings.[181] Currently, experts estimate that approximately three to four percent of all children "can be identified as having a birth defect, [which can be caused by altered genetic material], within the first year of life."[182] Fifteen to twenty percent of the adult population is also affected with at least one genetic defect.[183] Individuals in the population carry an average of at least five to seven lethal recessive genes[184] and fifteen to thirty "serious misspellings or alterations in [their] DNA."[185] Of those with a genetic defect, nearly one-third possess "defects that are of major medical or cosmetic significance."[186] From these statistics, it is

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major life activity,...the impairment is not a disability." ADDENDUM, *supra* note 176, § 902.4(c)(1) (emphasis added).

180. *Cf. Sutton*, 527 U.S. at 471 (discussing the need to make determinations of whether an individual was disabled based on that individual's characteristics, including her use of a mitigating measure). In *Sutton*, the Court held that twin sisters with severe myopia did not fall within the ADA's definition of "disability" because each had nearly perfect vision when wearing eyeglasses. *See id.* at 475. In its decision, the Court relied heavily upon Congress' finding that forty-three million people were disabled at the time the ADA was passed. *See id.* at 484–88 (quoting the language in 42 U.S.C. § 12101(a)(1) that "some 43,000,000 Americans have one or more physical or mental disabilities"). The Court reasoned that "[h]ad Congress intended to include all persons with corrected physical limitations among those covered by the Act, it undoubtedly would have cited a much higher number of disabled persons in the findings." *Id.* at 487. By not including more people, Congress intended to restrict the ADA's scope. *See id.*

181. *See* James W. Hanson, *Impact of Advances in Genetic Technology on Health Care and Public Policy*, 3 DICK. J. ENVTL. L & POL'Y 39, 40 (1994). Because genetic defects are so common, genetic testing will greatly improve the diagnosis and treatment of more diseases. *See* TOWLE, *supra* note 6, at 171.

182. *See* Hanson, *supra* note 181, at 40. A substantial number of birth defects are caused by genetic disorders, and birth defects can be used as an indication of the incidence of genetic defects in a population. *See id.*

183. *See id.* (noting that "at least a third [of these defects] are of major medical or cosmetic significance").

184. *See* Alexander M. Capron, *Which Ills to Bear?: Reevaluating the "Threat" of Modern Genetics*, 39 EMORY L.J. 665, 690 (1990).

185. Gerri Aston, *Preventing Genetic Discrimination: Legislation Proposed to Ban Denial of Health Insurance Based on Genetic Tests*, AM. MED. NEWS, Aug. 4, 1997, at 3, *available at* 1997 WL 9149539 (quoting Dr. Francis Collins, M.D., Ph.D., Director of the National Human Genome Research Institute). Scientists discover DNA misspellings and defects by comparing the test subject's genes to a control gene free of known disease-causing defects. *See* Miller, *supra* note 41, at 229–30. For information about specific genetic testing methods, see *supra* notes 42, 49 and accompanying text.

186. Hanson, *supra* note 181, at 40.

clear that genetic disorders and defects "affect a substantial proportion of our population."[187]

If the ADA were expanded to include all persons with genetic deformities and maladies, nearly every employee in all work environments would be protected, regardless of their actual or current abilities and health. This clearly contravenes Congress' intent to protect the disabled *minority* from the majority. Although there are reasonable justifications for including some asymptomatic individuals within the protections of the ADA,[188] it should not be expanded to include every individual with the *mere potential* to become disabled in the future.

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187. *Id.*

188. Proponents of the Human Genome Project have expressed concerns that, in the future, employers and insurance companies are most likely to use information gained from genetic tests in ways wholly unrelated to the medical purposes of the Project itself. In this way, they argue, the technology has the potential to harm the very persons it was intended to benefit. *See, e.g.*, Richard A. Bornstein, *Genetic Discrimination, Insurability and Legislation: A Closing of the Legal Loopholes*, 4 J.L. & POL'Y 551, 551–52 (1996) ("While genetic tests can be extremely helpful in preventing disease, they can also prevent many people from obtaining medical insurance...if genetic test results reveal a propensity for illness."); Kathy L. Hudson et al., *Genetic Discrimination and Health Insurance: An Urgent Need for Reform*, 270 SCIENCE 391 (1995) (commenting that individuals who fear that their genetic information will be used against them will not seek genetic tests, and the research efforts of the Human Genome Project will be lost); Francis H. Miller & Philip A. Huvos, *Genetic Blueprints, Employer Cost-Cutting, and the Americans with Disabilities Act*, 46 ADMIN. L. REV. 369, 371–72 (1994) (noting that employer use of genetic tests can be dangerous because inaccurate and misleading test results could be used to make employment decisions); Burk Burnett, Note, *Genetic Discrimination: Legislation Required to Keep Genetic Secrets*, 21 SETON HALL LEGIS. J. 502, 508 (1997) (discussing the need for greater federal protection against genetic discrimination because of the significant harm of increased discrimination in the workplace that would be created). Commentators thus point to the ADA as the most effective vehicle to avoid potential employment discrimination based on an individual's genetic characteristics. *See* Gostin, *supra* note 34, at 126 ("Public policy would be skewed if [the ADA] left individuals unprotected while free of symptoms and protected them only after they developed symptoms."); Miller, *supra* note 41, at 238 ("The ADA can and should be interpreted to prohibit employment discrimination based on asymptomatic genetic characteristics and genetic predisposition."); Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 33 ("[T]he broad policy of the ADA to prohibit discrimination based on health status encompasses most genetic conditions."). As noted in the text, however, the ADA is not the correct method by which to correct potential discrimination for two reasons. First, it does not, and cannot, prevent an employer from discovering an employee's genetic health in certain, limited circumstances. *See, e.g.*, discussion *supra* Part II. Second, the ADA does not cover asymptomatic persons with genetic maladies, nor was it created to do so. *See* discussion *supra* Part III.A and *infra* Part III.B; *see also* Mark S. Dichter & Sarah E. Sutor, *The New Genetic Age: Do Our Genes Make Us Disabled Individuals Under the Americans with Disabilities Act?*, 42 VILL. L. REV. 613, 619 (1997).

B. Expanding the ADA to Include All Asymptomatic Individuals with Genetic Maladies Would Violate Congress' Original Intent

The ADA was created in 1990 to protect a "discrete and insular minority"[189] who "as a group...are severely disadvantaged socially, vocationally, economically, and educationally" because of an *actual or perceived* disability.[190] With this Act, Congress intended to protect all individuals who are "relegated to a position of political powerlessness...resulting from stereotypic assumptions,"[191] even though the stereotype was not usually a true indication of the person's ability to meaningfully contribute to society.[192] Admittedly, Congress intended the ADA to have a wide scope and provide as much protection for the disabled as possible.[193] As a result, Congress estimated that this disadvantaged group included nearly forty-three million people.[194] It further noted that this group would expand over time as the population increased and lived longer because of advancements in the medical field.[195] Even so, it is clear that Congress did not intend for all persons with a disability, regardless of the effects or severity of the disability, to be included within this "discrete...minority."[196]

Through the ADA's language, Congress clearly intended to restrict its protections and requirements to include only a confined and *historically disadvantaged* group.[197] The ADA's requirements and protections were "constructed for people with basically phenotypic disabilities who had a long history of discrimination, and to redress that problem...."[198] Thus, a number of disabilities are not covered. For example, the EEOC has included the following list of "conditions or practices that are [*excluded*] from the [ADA's] definition of disability[:] homosexuality, bisexuality, transvestitism, transsexualism, pedophilia, exhibitionism, voyeurism, gender identity disorders not resulting from physical impairments, other sexual behavior disorders, compulsive gambling, kleptomania, pyromania, and psychoactive substance use disorders resulting from current illegal use of drugs."[199] If these real and present conditions are not protected under the ADA despite the obvious stereotypic assumptions associated with many of them, it

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189. 42 U.S.C. § 12101(a)(7) (1994).
190. *Id.* § 12101(a)(6) (emphasis added).
191. *Id.* § 12101(a)(7).
192. *See id.*
193. *See id.* § 12101(b).
194. *See id.* § 12101(a)(1).
195. *See id.*
196. *Id.* § 12101(a)(7). *See* Dichter & Sutor, *supra* note 188, at 619 (noting that Congress' limited scope is apparent simply by looking at the number of persons listed as disabled in 1990); *see also supra* notes 181–87 and accompanying text (noting that nearly all persons have at least one genetic misspelling or defect).
197. *See* 42 U.S.C. § 12101(a)(2); *see generally id.* § 12101 (discussing the purpose of the ADA).
198. Rhein, *supra* note 175, at 1 (quoting Paul R. Billings, a geneticist at the Palo Alto Veterans Hospital).
199. Kimberlin & Headley, *supra* note 73, at 583 (quoting EEOC, TECHNICAL ASSISTANCE MANUAL ON THE EMPLOYMENT PROVISIONS OF THE ADA § 2.2(a)(iii) (1992)).

is difficult to assume that Congress intended to protect individuals with non-existent, albeit potential, diseases.

In addition, during the legislative hearings before the adoption of the ADA, Congress referenced only those persons who were both presently disabled and able to meet the requirements of a disability under the ADA.[200] There was no discussion of whether the ADA should include those who had a mere potential to become disabled in the future because of current genetic misspellings.[201] Thus, the only way to find that these asymptomatic individuals are included within the protections of the ADA is through the negative inference that the failure to mention them indicates only that the ADA does not specifically *exclude* them.[202]

C. The Definition of "Disability" Should Not Be Interpreted to Include Asymptomatic Individuals

Expanding the ADA's definition of disability to include those persons who have knowledge of their genetic information, but who do not currently display symptoms of genetic diseases and disorders, would violate the basic idea of the ADA. Further, an individual with a genetic misspelling or malady cannot sustain his burden of proving that he is disabled within the ADA's narrow definition of disability. Accordingly, an employer who makes an adverse employment decision on the basis of a person's genetic test information is not liable for genetic discrimination. As a result, an employer's access to its employees' genetic test results should not be restricted.

Mere discovery of a genetic misspelling does not guarantee that an individual will actually be disabled or adversely affected by the genetic disorder in

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200. *See* Rhein, *supra* note 175, at 1 (citing at least one geneticist who questions whether the ADA is the most appropriate forum for addressing genetic discrimination).

201. *See* Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 39 (commenting that the ADA was enacted with little discussion about its impact on genetic discrimination and the Act itself is silent on the issue). There was brief mention of genetic discrimination in the House of Representatives just before the ADA was overwhelmingly adopted. *See* 136 CONG. REC. H4623, H4625, H4627 (1990) (Representatives Major R. Owens, Thomas Edwards, and Henry Waxman each noted that the ADA protects "carriers of a disease-associated gene."). Representative Henry Waxman asserted, in pertinent part:

> [A]n employer could not discriminate against a carrier of a disease-associated gene because such individual may be at higher risk of having a child with a genetic disease, whose care would increase costs for the parent's employer.... If the possibility of such increased costs were allowed to justify discrimination in employment, a huge loophole would be created in the protections of the ADA.

Id.

202. *See* Dichter & Sutor, *supra* note 188, at 625–26; *see also* Ellen Wright Clayton, *The Dispersion of Genetic Technologies and the Law*, HASTINGS CENTER REP. 513 May 1, 1995, at 13–14 ("In drafting the ADA, Congress said very little about genetic testing, an oversight that seems almost stunning now.").

the future.[203] Instead, it is only an *indication* that that individual may develop the disorder, depending upon the interaction between his genes and various factors and environmental circumstances, including exposure to radiation or other toxins.[204] The ADA does not apply to future disorders, but rather to present disabilities and impairments.[205] Further, a plaintiff would be unable to prove that future disability currently restricts a major life activity under the EEOC requirements, particularly because the extent and effect of the impairment cannot be determined until the disability actually occurs.[206]

To sustain a valid claim for employment discrimination under the ADA, a plaintiff must prove the following elements: "(1) [he] is a disabled person within the meaning of the Act; (2) [he] is qualified to perform the essential functions of [the job]...with or without reasonable accommodation; and (3) [he] suffered an adverse employment decision because of [his] disability."[207] To claim any protection, the plaintiff must first prove the threshold issue of whether he has a

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203. *See* Miller, *supra* note 41, at 230 (citing UNDERSTANDING GENE TESTING, *supra* note 6, at 7). The ability of any genetic test to predict a genetic disease or disorder is limited to determining only a probability, rather than a certainty, of developing the ailment. *See id.* The predictive capability of any genetic test is a function of three discrete variables: (1) the test's sensitivity, (2) its specificity in determining the particular mutated genes, and (3) the frequency of the condition in the population. *See* Laura Rowinski, Comment, *Genetic Testing in the Workplace*, 4 J. CONTEMP. HEALTH L. & POL'Y 375, 382 (1988). The accuracy of genetic tests for any particular ailment increases as the frequency of that disease in the sample population increases. *See id.*

204. *See* HUMAN GENOME PROJECT INFORMATION II, *supra* note 4, ¶ 4, *at* http://www.ornl.gov/hgmis/medicine/genetest.html. Scientists also note that a positive test may be difficult to interpret because some people never develop the diseases indicated by their genetic makeup. *See id.* Additionally, unidentified mutations may have an impact on whether a disorder may develop, and until all mutations are documented, it may be impossible to accurately predict the diseases. *See id.* As with all scientific tests, the possibility of laboratory errors, sample misidentification, and contamination of the chemicals used to discover genetic mutations will limit the test's accuracy. *See id.* ¶ 5. Notwithstanding these limitations the public and private sectors presume that these tests are both correct and conclusive. *See* Miller, *supra* note 41, at 231–32 (citing Eric Mills Holmes, *Solving the Insurance/Genetic Fair/Unfair Discrimination Dilemma in Light of the Human Genome Project*, 85 KY. L.J. 503, 529 (1997)).

205. *See* 29 C.F.R. § 1630.2(h) (1997) (noting that "characteristic predisposition to illness or disease" is not an impairment); *see also* Rhein, *supra* note 175, at 1 (quoting Paul R. Billings, a geneticist at the Palo Alto Veterans Hospital, as saying the following: "The ADA was constructed for people with basically phenotypic disabilities who had a long history of discrimination, and to redress that problem....").

206. *See* Frank R. Emmerich, Jr., *Employee Terminated/Cause of Action Dismissed: The Americans with Disabilities Act Provides No Haven for Employees Hypersusceptible to Genetic Illnesses*, 4 J. INDIVIDUAL EMP. RTS. 185 (1995–96) (suggesting that an employee will not be able to challenge genetic discrimination under the ADA because a genetically hypersusceptible employee does not have a disability within the meaning of the ADA).

207. Burns v. Coca Cola Enters., 222 F.3d 247, 253 (6th Cir. 2000) (citations omitted). An employer is not liable for employment discrimination if the individual is unable to prove any of these elements. *See id.*

disability covered by the ADA.[208] A disability, as defined by the ADA itself, is a "physical or mental impairment that substantially limits one or more of the major life activities...."[209] Whether a disability is "substantially limiting" depends upon the nature and severity of the impairment, its actual or expected duration, and its permanent or long-term impact upon the individual.[210] The EEOC, the governmental agency given the statutory authority to promulgate regulations under the ADA,[211] has defined a "major life activity" to include the following: "caring for oneself, performing manual tasks, walking, seeking, hearing, speaking, breathing, learning, and working."[212]

The Human Genome Project and genetic testing are generally aimed at preventative medicine, in that test subjects are told which genetic diseases and disorders they have the potential to develop in the future based upon their current genetic makeup.[213] Most genetic misspellings, including those that are linked to cancer, heart disease, and epilepsy, do not produce present symptoms, particularly those that would be considered to "substantially limit" any of the plaintiff's major life activities.[214] Because plaintiffs do not usually feel the effects of the defective genes at the time the alleged discrimination occurs, most are unable to prove that they suffer from current disabilities and are entitled to ADA protection.[215]

Even if a plaintiff does not have an *actual* disability that substantially limits one of the major life activities, he may claim protection under the ADA if he can prove that he is *regarded* as having such an impairment.[216] Under this

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208. *See id.*

209. 42 U.S.C. § 12102(2)(A) (1994).

210. *See* Kaufmann, *supra* note 10, at 410 (citing 29 C.F.R. § 1630.2(j)(2) (1997)).

211. *See* 42 U.S.C. § 12116 (1994) (authorizing the EEOC to implement Title I of the ADA).

212. 29 C.F.R. § 1630.2(i) (1997). Recently, the Supreme Court added the ability to freely reproduce to this list in its decision in *Bragdon v. Abbott*, 524 U.S. 624, 639 (1998). For an in-depth discussion of this case, see *supra* notes 76–88 and accompanying text.

213. *See supra* notes 3–17 and accompanying text.

214. *See* Dichter & Sutor, *supra* note 188, at 620.

215. *See id.*; *see also* Kaufmann, *supra* note 10, at 411. If a plaintiff is able to sustain the burden of proving that he suffers from a present disability and is presently substantially limited in a major life activity, he will be considered disabled under the ADA. This Note only addresses those persons who are not presently substantially limited in a major life activity, despite having a genetic malady.

216. *See* 42 U.S.C. § 12102(2)(C) (1994). The EEOC regulations define the "regarded as" prong as applying to a person who:

> (1) Has a physical or mental impairment that does not substantially limit major life activities but is treated by a covered entity as constituting such limitation; (2) Has a physical or mental impairment that substantially limits major life activities only as a result of the attitudes of others toward such impairment; or (3) Has none of the impairments defined in paragraphs...(1) or (2) of this section but is treated by a covered entity as having a substantially limiting impairment.

29 C.F.R. § 1630.2(*l*) (1997).

alternative, the plaintiff does not have to show an actual disability or present symptoms of a future disability. Rather, he must prove that the employer perceives him as being disabled and treats him as if he is substantially limited in some regard because of that perceived disability.[217] Proving only that the employer knew about the disability is not sufficient under the Act, even if the employer did not hire the employee specifically because of that disability.[218]

Although the EEOC has provided some formal statements that indicate the ADA may be applied to potential genetic disabilities in the future, [219] it has failed to take a clear stance on this issue. [220] Consequently, it is unclear whether a court will blindly follow the EEOC's Guidance on this subject, particularly when the ADA, and its legislative history, is virtually silent on the topic of genetic discrimination.[221] In 1991, Ronnie Blumenthal, the Acting Director of

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217. *See* Kelly v. Drexel Univ., 94 F.3d 102, 109 (3d Cir. 1996) (noting that under this prong, the employer's perceptions about whether the employee has a disability that substantially limits a major life activity is far more important than whether the employee actually has the perceived disability). Commentators have argued that asymptomatic individuals can easily satisfy this prong, provided they are excluded from employment or from participating in some particular job simply because of their genetic deformities. *See* Dichter & Sutor, *supra* note 188, at 622–23. Indeed, this is the most popular technique of obtaining ADA protection for genetic test information and those who are diagnosed with genetic misspellings and disorders. *See generally* Kimberlin & Headley, *supra* note 73, at 601–03 (listing a number of recent cases that used the "regarded as" prong of the ADA to obtain protection, even though the plaintiff did not have an actual disability). To satisfy this prong, however, the employee must prove that the employer not only knows about the disability, but that he *also* believes that the employee is substantially limited in a major life activity because of that disability. *See Kelly*, 94 F.3d at 109–10.

218. *See Kelly*, 94 F.3d at 109–10.

219. *See* Kaufmann, *supra* note 10, at 413–14.

220. *See id.*

221. Courts have recognized that EEOC guidelines are entitled to some deference. *See* Gen. Elec. Co. v. Gilbert, 429 U.S. 125, 140 (1976). *But see* Sutton v. United Air Lines, Inc. 527 U.S. 471, 480 (1999) (noting a contradiction between the EEOC's and Department of Justice's definition of disability, but refusing to consider to the level of deference to which either definition was entitled, "if any"). Because they do not have the force of law, however, courts are free to refuse to follow them. *See, e.g*, Deckert v. City of Ulysses, No. 93-1295, 1995 WL 580074, at *6 (D. Kan. Sept. 6, 1995) (holding that when the ADA creates a specific method by which a court should determine whether a person is disabled, an EEOC Guidance creating a "checklist" of approved disabilities is invalid); Schmidt v. Safeway Inc., 864 F. Supp. 991, 1000–01 (D. Or. 1994) (stating that to extent there is any inconsistency between the EEOC Technical Assistance Manual and ADA, it must be resolved in favor of ADA); Coghlan v. H.J. Heinz Co., 851 F. Supp. 808, 813 (N.D. Tex. 1994) (rejecting EEOC guidance that made insulin-dependent diabetes a disability per se as contrary to ADA). Recently, the Supreme Court rejected the EEOC's interpretation of the ADA term "disability." *See Sutton*, 527 U.S. at 482 (finding that the EEOC's interpretation, which required courts to evaluate disabled persons in their unmitigated and uncorrected state was an "impermissible interpretation of the ADA"). The Court further noted that "no agency...[had] been given authority to issue regulations implementing the generally applicable provisions of the ADA,...[including the] authority to interpret the term 'disability.'" *Id.* at 479.

Communications and Legislative Affairs for the EEOC, wrote an opinion letter stating that the ADA did not prohibit genetic discrimination "until the condition 'exists' and the individual is symptomatic."[222] He further noted that genetic issues are "unique and outside the Commission's expertise, [and]...should be resolved by means of legislation, not by agency regulation."[223] Four short years later, however, the agency reversed its position and released a formal published statement allowing ADA protection for genetic discrimination. In pertinent part, this statement provides that the ADA

> applies to individuals who are subjected to discrimination on the basis of genetic information relating to illnesses, disease, or other disorders. Covered entities that discriminate...on the basis of such genetic information are regarding [these] individuals as having impairments that substantially limit a major life activity. Those individuals, therefore, are covered by the third part of the definition of "disability."[224]

Courts are not obligated to follow the EEOC's interpretive regulations and formal statements, but tend to rely upon such evidence when interpreting the ADA and its definitions.[225]

The above statement does not provide a clear interpretation of the ADA's scope, however. As a result, courts should exercise caution before applying it, ipso facto, to make a genetic disorder protected under the "regarded as" prong of the ADA. The EEOC regulations do not mean that all individuals possessing genetic predispositions are covered.[226] For example, an individual with a "characteristic predisposition to illness or disease" is not impaired.[227] Furthermore, the regulations maintain the exception that physical characteristics and conditions that are not the result of a physiological disorder are not impairments.[228] Absent a clear legislative amendment, the ADA should not be expanded to include potential genetic disorders.

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222. *See* Kaufmann, *supra* note 10, at 413 (quoting Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 45).

223. *See id.* at 414 n.126 (quoting Rothstein, *Genetic Discrimination in Employment*, *supra* note 19, at 46–47).

224. *Id.* at 414 (quoting ADDENDUM, *supra* note 177, § 902.8(a)).

225. *See* Meritor Sav. Bank v. Vinson, 477 U.S. 57, 65 (1986) (noting that the EEOC's interpretation is not controlling but does constitute a body of experience and informed judgment to which courts may properly look for guidance). *But see Sutton*, 527 U.S. at 478–79 (1999) (noting that although the EEOC has been given explicit authority to issue regulations to carry out the mandates of Title I, "no agency has been delegated authority to interpret the term 'disability'"); Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837, 843 n.9 (1984) (noting that the "judiciary is the final authority on issues of statutory construction and must reflect administrative constructions which are not contrary to clear congressional intent").

226. The EEOC has limited the scope of the "regarded as" prong in its regulations to three specific situations. *See supra* note 216 and accompanying text; *see also* Deyerle, *supra* note 3, at 574.

227. 29 C.F.R. § 1630.2(h) (1997).

228. *See* Deyerle, *supra* note 3, at 570.

IV. CONCLUSION

The Human Genome Project promises to provide a number of benefits to medicine, including the early diagnosis, prevention, and treatment of a wide variety of genetic diseases. The benefits of the project are not limited to the medical profession, however. As genetic tests become less expensive, more accurate, and easier to administer, more groups, including employers and insurance companies, will use this information for legitimate non-medical purposes. Although discrimination among persons solely because of their disability should be discouraged, the ADA cannot be expanded to provide protection for persons who are not yet disabled. To do so would violate the basic intent of the ADA and weaken its current protections. In addition, an employer's right to use all necessary and relevant information should be protected, so long as the information is used to further the employer's business interests and not as a subterfuge for invidious discrimination. An employer must be able to protect its business interest, which includes the health and well-being of its employees.