BASEBALL’S DNA TESTING POLICY STRIKES OUT:  
GENETIC DISCRIMINATION IN MAJOR LEAGUE BASEBALL

Shannon K. Stevens∗

I. INTRODUCTION

The New York Yankees signed shortstop Damian Arredondo on July 3, 2009.1 The sixteen-year-old switch hitter from the Dominican Republic garnered an $850,000 signing bonus, and in return he promised a strong arm and speed—“he reportedly ran a 60-yard-dash in 6.4 seconds.”2 The problem is that Damian Arredondo is not sixteen years old. In fact, his name is not Damian Arredondo.3 Soon after the team signed him, a Major League Baseball (MLB) investigation revealed that he lied about his identity and his age.4 The Yankees subsequently voided his contract, and he is now a free agent.5 Such stories are common. Other MLB franchise teams have likewise been the victims of identity fraud by international players, particularly players from the Dominican Republic.6 Since the United

∗ J.D. Candidate, May 2011, Seton Hall University School of Law; B.S., 2008, Birmingham-Southern College. I thank my Mom and Dad for their love and support. I also thank Professor Bernstein for her thoughtful commentary and Sarah Greers for her technical assistance.

3 Id.
5 Id.
6 See, e.g., Paul Hoynes, Tribe Paid $750,000 to Impostor, CLEVELAND PLAIN DEALER, Sept. 19, 2009, at D5, available at http://www.cleveland.com/tribe/plaindealer/index.ssf/base/sports/12533492571110300.xml&coll=2 (covering the investigation of Cleveland Indians player Jose Ozoria who had claimed to be seventeen years old but who was actually twenty-year-old Wally Bryan); Mark Zuckerman, The Final Countdown?, WASH. TIMES, Feb. 27, 2009, at C01, available at 2009 WLNR 3858470 (reporting that Washington Nationals’s sixteen-year-old Esmailyn Gonzales, who had received a $1.4 million signing bonus, had falsified his identity; it was later discovered that the player was actually Carlos David Alvarez Lugo and four years older than claimed).
States began requiring stricter document verification after September 11, 2001. 540 major and minor league baseball players were identified as lying about their identity or falsifying their age to make themselves appear younger. Most of these cases involve players from the Dominican Republic, but likely no one would suggest Dominican players are undeserving of the opportunity to play major league baseball. The country is known for its proliferation of great baseball players. “[B]aseball is a natural resource for the Dominican Republic,” and stars including Sammy Sosa, David Ortiz, and Manny Ramirez hail from the country. Regardless, teams are growing more guarded when recruiting international players. For example, the Cleveland Indians recently contemplated requesting DNA tests for all incoming international players who sign for over a $50,000 bonus. The Indians’ Director of Scouting, John Mirabelli, noted that “it’s more expensive, but . . . we want to be as precise as we can be.”

In all probability, the age and identity problem will not soon disappear. MLB teams pay high salaries to their top players. In 2009, for example, the New York Yankees had a total payroll of over $200 million and paid their players an average of $5 million each. MLB rookies can be awarded as much as $500,000 in starting salary with equally high signing bonuses. Dominican prospects, unlike U.S. and Canadian players, are not subject to a draft. Dominican sports agents, called “buscons,” recruit and train young players and then

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7 Baxter, supra note 4.
8 See id.
10 Id.
11 Id.
12 See id.
13 Hoynes, supra note 6.
14 Id.
15 In a recent development, MLB insiders revealed that the organization is considering establishing a youth baseball league in the Dominican Republic. Michael S. Schmidt, Baseball Considers Plan to Curtail Age Fraud, N.Y. TIMES, Feb. 10, 2010, at B11, available at http://www.nytimes.com/2010/02/10/sports/baseball/10baseball.html. The plan could involve an MLB-run pipeline for Dominican talent and include a fingerprinting system to keep track of youth players. Id.
18 Baxter, supra note 4.
negotiate contracts and signing bonuses on the players’ behalf. The buscón can receive up to half of the bonus as compensation. Because money and fame accompany young, talented players, age and identity fraud are unfortunately common, especially as Dominican players have the additional pressure of a greedy buscón.

In a written statement, MLB announced that it would be requesting DNA samples from Dominican prospects on a consensual basis to address the age and identity fraud problem. Some franchise teams have gone one step further in requiring DNA tests for all international recruits. In the past, Dominican players have found others willing to lend a younger child’s birth certificate for the player to submit as proof of age. Similar to the widely publicized controversies involving players in the Little League World Series—and in contrast to Women’s Olympic Gymnastics—it is far more beneficial for a prospective player to appear younger than older. Using DNA samples, MLB’s Office of Investigations can determine whether the parents listed on the birth certificate are in fact the biological parents of the player and consequently, whether the office should further question the age of the prospect. Thus, the investigation is essentially into the paternity and maternity of the individuals listed on the birth certificate.

Alarmingly, scouts and commentators have speculated that MLB is keeping and testing DNA samples to determine a player’s susceptibility to disease and injury. MLB has declined to say whether it keeps the samples. The scouting director for one team stated that he was not sure whether the MLB could test for susceptibility to cancer, but “[he knew] they’re looking into trying to figure out suscepti-

18 Id.
19 Id.
21 See supra text accompanying notes 12–13.
22 Schmidt & Schwarz, supra note 16.
24 See Schmidt & Schwarz, supra note 16.
25 Id.
bility to injuries." Such a practice, while unverified, conjures up unsettling images reminiscent of Aldous Huxley’s *Brave New World* or the 1997 movie *Gattaca*.

Genetic information contains a wealth of data about a person. Humans, indeed all living things, contain cells—the basic units of life. Deoxyribonucleic acid (DNA), the source of genetic information, is found in each cell. Long strands of DNA intertwine with the help of proteins to form chromosomes. DNA represents the instructions for operating the cell and has two primary functions. The first is to code for making proteins. Cell machinery “reads” DNA and manufactures amino acids, which are subsequently strung together to form the proteins making up the tissues and organs of the body. The second function of DNA is to copy the instructions for reproduction and delivery to offspring. To accomplish this vital task, cell machinery again “reads” the DNA, makes a copy of it, and stores it in sperm or egg cells.

Mistakes in the DNA, called “mutations,” can cause disease. Where the DNA contains a mutation, cell machinery may make the wrong protein, make too much of it, or fail to make it altogether. Such problems with protein synthesis can cause disease or increase one’s chances of developing disease. For example, amyotrophic lateral sclerosis (ALS or “Lou Gehrig Disease”) is a motor neuron disorder that causes random weakness, muscle atrophy, and cramps. Death, which in a majority of cases occurs within three years, often

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27 Schmidt & Schwarz, *supra* note 16.
28 See ALDOUS HUXLEY, *BRAVE NEW WORLD* (Harper Perennial Modern Classics 2006) (1932); *GATTACA* (Columbia Pictures 1997).
29 James Evans et al., *Genetics, in SCIENCE FOR LAWYERS* 175, 178 (Erik York Drogin ed., 2008).
30 Id.
32 Evans et al., *supra* note 29, at 180.
33 Id. at 182.
35 Evans et al., *supra* note 29, at 185–86.
36 Id. at 186.
37 Id. at 188.
38 Id.
39 This disease was made famous when baseball great Lou Gehrig was diagnosed with ALS. *ATLAS OF PATHOPHYSIOLOGY* 116 (H. Nancy Holmes ed., 2002). One cannot help but ask this question: would the Yankees have continued to start Gehrig if they knew he was predisposed to ALS?
40 MERCK MANUAL 1897–98 (Mark H. Beers et al. eds., 18th ed. 2006).
results from the failure of respiratory muscles. 41 ALS has multiple contributing causes, one of which is a mutation in DNA. 42

Genetic testing can reveal these mutations, and herein lies the danger; MLB teams use the DNA test to determine paternity. 43 A genetic test is a broad term, but it could include a test that analyzes DNA, RNA, genes, or chromosomes. 44 With this information, the tester can determine what diseases the subject has or might one day develop. 45 Importantly, DNA does not encode for age. 46 As we age, our chromosomes become more susceptible to damage, 47 but no genetic test can tell an investigator that the owner of a particular sample of DNA is twenty years old. 48 Accordingly, any genetic testing MLB requires—ostensibly to determine a player’s age—will necessarily reveal genetic information other than age and will be incapable of determining the player’s age directly.

After receiving media attention, the MLB DNA testing policy has come under fire, and commentators are raising questions concerning its ethical implications and legality. 49 This Comment addresses the wide range of ethical and legal issues arising from the policy. It concludes that the MLB policy skirts the bioethical line unnecessarily. Not only does MLB face strong potential for a legal battle, it faces, and already has faced, judgment in the public sphere. 50 Most importantly, good old-fashioned detective work and less invasive medical procedures, such as a bone scan, are a much less controversial way to discover and prevent age and identity fraud. 51

Part II of this Comment will summarize genetic discrimination and how, in the context of sports, it raises an interesting problem be-

41 Id.
42 ATLAS OF PATHOPHYSIOLOGY, supra note 39, at 116.
43 Schmidt & Schwarz, supra note 16.
45 Id. at 10.
46 There is no particular gene or set of genes for age as there might be for brown hair and blue eyes. While a genome will likely sustain greater damage as the individual ages, there is no genetic test for age. See generally ROBERT ARKING, THE BIOLOGY OF AGING: OBSERVATIONS AND PRINCIPLES (3rd ed. 2006).
47 Id. at 368.
48 See supra note 46.
49 See supra text accompanying notes 23–26.
50 For discussion relating to the potential legal battle see infra Part IV. For discussion relating to public scrutiny see supra notes 25–28.
51 See infra Part IV for a discussion of alternatives to a DNA test that do not raise liability issues.
cause professional sports teams depend directly on the health of players for success. Part III will discuss the applicability of the Americans with Disabilities Act (ADA) and why this Act does not provide an adequate remedy in this specific context. Part IV is a comprehensive overview of Title II of the recently enacted Genetic Information Nondiscrimination Act (GINA) and its possible application to the MLB DNA testing policy. Finally, Part V provides an overview of state laws addressing genetic discrimination and specifically reviews the New York genetic discrimination statute.

II. GENETIC DISCRIMINATION AND THE CURIOUS PROBLEM OF PROFESSIONAL ATHLETICS

Genetic discrimination is not a new phenomenon. Early examples involved discrimination based on phenotype (the physical manifestation of a genetic trait) and sought to purify or discriminate among the population’s ethnic or racial makeup. The federal government established the Eugenics Records Office in 1910; its mission was to collect genetic data to ensure that marriages would be suitable based on various genetic criteria. Passed in the form of immigration restrictions, a 1924 federal act limited the entry of Southern and Eastern European immigrants. President Calvin Coolidge, who previously said “America must be kept American,” quickly signed the Act into law.

States also had a hand in the genetic discrimination pervasive in the early 1900s. Many states passed sterilization laws targeting racial minorities, immigrants, and institutionalized individuals. Pennsylvania’s law, entitled the “Act for the Prevention of Idiocy,” authorized the sterilization of “feebleminded” children for whom procreation was inadvisable as determined by state institution surgeons. The “Indiana Plan” intended to address crime and degenerate classes of humanity by requiring vasectomies—a simple outpatient procedure. In 1927, the Supreme Court upheld Virginia’s forced sterilization

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52 Early genetic discrimination, if merely based on phenotype, would not involve modern genetic testing such as a DNA test. For one of the first instances of modern genetic profiling see Alec J. Jeffreys et al., *Hypervariable Minisatellite* Regions in Human DNA, 314 Nature 67 (1984).

53 Id. at 100.


55 Id.


laws, declining to strike down the program on either Fourteenth Amendment due process or equal protection grounds.\footnote{58} Decades later, sickle-cell-anemia screening programs began.\footnote{59} These programs, which by default targeted African Americans, identified carriers of the disease.\footnote{60} Scientists suggested at the time that healthy carriers might be particularly susceptible to toxins such as benzene, lead, cadmium, carbon monoxide, and cyanide.\footnote{62} Not surprisingly, employers began testing for the sickle-cell-anemia gene based on this theory to single out those employees that might be susceptible to workplace toxins.\footnote{63} Because the practice led to widespread stigmatization and discrimination against carriers, Congress ultimately passed the National Sickle Cell Anemia Control Act in 1972, which withholds federal funds from states unless sickle-cell-anemia testing is voluntary.\footnote{64}

It is no wonder then that fears developed over the acquisition and use of genetic information, especially in the context of employment. The breadth of information provided leaves an individual feeling particularly vulnerable and apprehensive about its use.\footnote{65} A 1997 national telephone survey found that when asked whether the respondent would take a genetic test if insurers or employers had access to the results, sixty-three percent said no.\footnote{66} In 2004, a John Hopkins University study similarly found that less than ten percent of those surveyed believed that employers should have access to genetic information.\footnote{67} A report by the Department of Labor, the Department of Health and Human Services, and the Equal Employment Opportunity Commission cited a study of just under one thousand people that identified two hundred cases of genetic discrimination, as well as

\footnote{58} Buck v. Bell, 247 U.S. 200 (1927).
\footnote{60} Judy Monroe Peterson, Sickle Cell Anemia 6 (2009).
\footnote{61} Kaufmann, supra note 59, at 402.
\footnote{62} Kaufmann, supra note 59, at 402–03.
\footnote{63} Id.
a study that identified five hundred people who were denied insurance or employment on the basis of a genetic predisposition to disease. The fears underlying these statistics stem from the idea that an individual’s genetic data can be arbitrarily and maliciously used to discriminate against a person when seeking insurance or employment. The findings illustrate that receipt of another’s genetic profile opens up a Pandora’s Box of information especially susceptible to abuse.

But genetic discrimination in the context of professional sports raises a more complex issue. While many jobs require general well-being, there is not a strong emphasis on a single employee’s performance, and success is not closely tied to physical ability. For example, although an employee may have asthma or sickle-cell-anemia, her condition would not normally prevent her from being a successful lawyer, doctor, or teacher.

This is not the case, however, in the context of professional sports. A professional baseball player’s success, much less his career, depends on his physical well-being. In a sense, health is a legitimate and necessary job qualification, and employers must consider it to protect themselves and the employee from harm. Paul Trumble argues that “the influence of athlete-employees differs from the influence of ordinary employees in two key interrelated respects—heightened organizational and financial dependence of the sports employer on the athlete-employee.” Furthermore, these teams rely on a small number of athletes and depend almost exclusively on the employees’ health for financial success. Thus, the arbitrariness and insidiousness that often characterized employment discrimination is not necessarily present in the professional sports context.

Even though health may seem like a legitimate job qualification for a professional athlete, genetic testing is still extremely problemat-

69 But see Colin S. Diver & Jane Maslow Cohen, Genophobia: What Is Wrong with Genetic Discrimination, 149 U. PA. L. REV. 1439, 1463 (2001) (suggesting that the evidence provided by such studies is too anecdotal to adequately describe the extent and nature of genetic discrimination).
71 Id. at 788.
ic because of the possibility that genetic information will be used in irrelevant or inappropriate ways. Take as an example the circumstances surrounding former Chicago Bulls center Eddy Curry. Curry began experiencing heart discomfort during March of 2005 and underwent testing by cardiologists who confirmed the structural soundness of his heart. He was, however, diagnosed with athletic tachycardia, or “athlete’s heart,” which is a condition that develops when significant amounts of physical exertion over time enlarge the heart. Despite the fact that the first set of cardiologists cleared him to play, the Bulls sought the opinion of another cardiologist who suggested Curry might be susceptible to developing hypertrophic cardiomyopathy—a rare but potentially deadly condition. When the Bulls insisted that Curry take a DNA test, Curry refused; although he did secure a six-year, $56 million contract with the Bulls, he was traded to the New York Knicks. It is doubtful anyone would argue that Curry’s career as a professional basketball player would not be in jeopardy if he were found to have severe heart problems. Ultimately, although Curry was able to sign a long-term contract, it is disturbing that the Bulls pressed the issue after Curry successfully passed a battery of tests. In short, the DNA test was invasive because it was unnecessary.

Despite the curveball that professional athletics throws into the genetic discrimination discussion, it is still a contentious issue, and its victims deserve legal protection. Merit-based decisions in employment have long been a goal of federal legislation. The discussion that follows will address efforts to provide legal redress for the discriminatory use of genetic information in the employment context, which many fear the new MLB policy will encourage.

74 Id. at 847.
III. INADEQUACY OF THE AMERICANS WITH DISABILITIES ACT TO REMEDY GENETIC DISCRIMINATION

The Americans with Disabilities Act was enacted to eliminate discrimination against individuals based on disability. Title I of the ADA specifically prohibits discrimination on the basis of disability in employment. The claim of genetic discrimination in the workplace, however, has not proved a good fit for litigation under the ADA. Specifically, a genetic predisposition to disease may not fall within the Act’s definition of a disability. Also, genetic testing by an employer may escape scrutiny under the Act’s restrictions on pre-hiring medical examinations and disability-related inquiry. These barriers prevent the ADA from providing adequate protections to victims of genetic discrimination in employment.

As a threshold matter, in order to qualify for protection under the ADA, the claimant must have a disability. The statute defines disability in three ways. First, the ADA defines it as a “physical or mental impairment that substantially limits one or more major life activities.” Although the actual manifestation of a genetic disease would be considered a disability if substantially limiting a major life activity, the predisposition to that genetic disease does not fit within the literal definition because it does not amount to a manifested impairment.

The second definition of disability is “a record of such an impairment.” This category covers individuals who have a history or record of impairment or who have been misclassified as having an impairment. But here again, a claimant’s mere disposition provides no history, record, or misclassification.

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79 Id.
80 Id. §§ 12112–12117.
81 § 12112(a).
82 Id. § 12102(1)(A).
83 See, e.g., Dennin v. Conn. Interscholastic Athletic Conference, Inc., 94 F.3d 96, 98 (2d Cir. 1996) (finding that Down Syndrome, a genetic disease, is a disability under the ADA).
86 29 C.F.R. § 1630.2(k) (2010).
Finally, the ADA protects as disabled those individuals who are “regarded” as having an impairment. This definition provides the most promising avenue for individuals who have a predisposition to genetic disease. The Code of Federal Regulations subdivisions this definition into three further categories. The first category includes individuals with impairments that do not substantially limit major life activities but are treated by the employer as having such limitations. In the second category, the individual has an impairment that substantially limits activities only as a result of the attitudes of others towards such impairment. In the third, the individual has none of the impairments but is treated by a covered entity as having a substantially limiting impairment.

With respect to the third category, only the employer’s perception and treatment are at issue, and thus, an individual with a predisposition to a genetic condition could have a qualifying disability that is afforded the protections of the ADA. The interpretive guidance of the Equal Employment Opportunity Commission (EEOC) supports this notion. It states that the third definition of disability “applies to individuals who are subjected to discrimination on the basis of genetic information.” Additionally, in 2000 President Clinton issued an executive order prohibiting genetic discrimination in federal employment consistent with the EEOC guidance. But this order does not address private or state employment and is made under the executive’s vague authority to “take Care that the Laws be faithfully executed” granted by Article I of the Constitution. Furthermore, the seemingly favorable EEOC guidelines may have persuasive authority but are not binding. Importantly, courts have not, and likely will not, consider predisposition to a disease a disability under the

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88 29 C.F.R. § 1630.2(l)(1).
89 Id. § 1630.2(l)(2).
90 Id. § 1630.2(l)(3).
91 GERARDS ET AL., supra note 84, at 156; Dichter & Sutor, supra note 84, at 620.
92 3 EQUAL EMPLOYMENT OPPORTUNITY COMMISSION COMPLIANCE MANUAL § 902.8 (1995).
94 U.S. Const. art. I, § 1, cl. 1.
95 See Skidmore v. Swift & Co., 323 U.S. 134, 140 (1944) (“We consider that the rulings, interpretations and opinions of the Administrator under this Act, while not controlling upon the courts by reason of their authority, do constitute a body of experience and informed judgment.”).
The Supreme Court has also narrowly interpreted “disability.” And although Congress ultimately rejected the Court’s narrow construction by amending the ADA, it did not include any provision in the amendments that defined genetic predisposition as a disability—likely because of the impending consideration of the Genetic Information Nondiscrimination Act. Thus, it is unlikely that a claimant with a mere genetic predisposition could demonstrate a disability under the ADA.

Genetic testing may also escape scrutiny under the ADA’s restrictions on pre-hiring medical examinations and disability-related inquiries. These provisions state that “a covered entity shall not conduct a medical examination or make inquiries of a job applicant as to whether such applicant is an individual with a disability or as to the nature or severity of a disability.” It is acceptable, however, to “make preemployment inquiries into the ability of an applicant to perform job-related functions.” Additionally, and most significantly, once an offer of employment is made, the entity can require a medical examination and may condition the offer on the result of this examination under three conditions: (1) all incoming employees must be subjected to the examination; (2) the information obtained must be collected and maintained on separate and confidential forms; and (3) the results of the medical examination must be used in accordance with the ADA.

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97 See, e.g., Toyota Motor Mfg., Ky., Inc. v. Williams, 534 U.S. 184, 197–99 (2002) (finding the respondent who claimed that her employer failed to reasonably accommodate her carpal tunnel syndrome did not have a disability under the ADA by reasoning that Congress intended that the element of disability be a high bar), superseded by ADA Amendments Act of 2008, Pub. L. No. 110-325, sec. (2)(b)(4), (5), 122 Stat. 3553, 3554; Sutton v. United Air Lines, Inc., 527 U.S. 471, 507 (1999) (finding that the petitioner who was diagnosed with myopia did not have a disability under the ADA and adopting an “understanding that those whose impairments are largely corrected by medication or other devices are not ‘disabled’ within the meaning of the ADA”), superseded by ADA Amendments Act of 2008, Pub. L. No. 110-325, sec. (2)(b)(3), 122 Stat. 3553, 3554.
100 Id. § 12112(d)(2)(B).
101 Id. § 12112(d)(3).
102 §§ 12112(d)(3)(A)–(C).
Administrative regulations complement the language of the medical examinations provision. The Code of Federal Regulations provides that an entity “may make pre-employment inquiries into the ability of an applicant to perform job-related functions, and/or may ask an applicant to describe or to demonstrate how, with or without reasonable accommodation, the applicant will be able to perform job-related functions.” The EEOC Compliance Manual defines a prohibited “disability-related inquiry” as one “that is likely to elicit information about a disability.” Relevant examples provided by the EEOC of prohibited conduct include asking an employee to provide medical documentation regarding a disability; asking an employee’s co-worker, family member, or other person about the employee’s disability; and, significantly, asking about an employee’s genetic information. Further, the EEOC makes clear that this provision is not limited in application to qualified individuals with a disability, but rather that “the ADA’s restrictions on inquiries and examinations apply to all employees, not just those with disabilities.”

Nonetheless, this provision of the ADA may also fail to provide adequate protections. The statutory language allows employers to extend a bona fide conditional job offer and then to subsequently deny employment to individuals whose disabilities are discovered during a post-offer exam. The Ninth Circuit dismissed just such a medical examination-based claim—where an employer retracted an offer after a medical exam—in Norman-Bloodsaw v. Lawrence Berkeley Laboratory. The plaintiffs voluntarily agreed to submit blood and urine samples after the employer made offers conditional upon a medical examination; however, the plaintiffs were unaware that the employer was testing for sickle cell anemia, syphilis, and pregnancy. The court held that “the ADA imposes no restriction on the scope of entrance examinations; it only guarantees the confidentiality of the information gathered and restricts the use to which an employer may put the information.”

103 29 C.F.R. § 1630.14(a) (2010).
104 2 EQUAL EMPLOYMENT OPPORTUNITY COMMISSION COMPLIANCE MANUAL § 915.002 (2000).
105 Id.
106 Id. (emphasis added).
108 135 F.3d 1260, 1264 (9th Cir. 1997).
109 Id. at 1265.
110 Id. at 1273.
Although the case eventually settled, *EEOC v. Burlington Northern Santa Fe Railroad* provides an example of a genetic discrimination claim that may have been viable under the ADA. In 2001, the EEOC sought a preliminary injunction to require the Burlington Northern Santa Fe Railroad to end genetic testing of employees filing work-related injury claims. The workers claimed that they were required to submit blood samples, but they were not told of or asked to consent to genetic testing for a chromosome deletion that leads to some types of carpal tunnel syndrome. Apparently, the company believed (erroneously) that this test could demonstrate that the carpal tunnel syndrome was genetic rather than work-related. One employee, George Avary, claimed that the company had threatened disciplinary action after he refused to provide a blood sample. The EEOC took the position that the genetic testing violated the ADA, specifically the restrictions under § 12112(d) on medical examinations and inquiries, because the examination was not “job related and consistent with business necessity.” In April of 2001, however, the EEOC settled with the railroad. The agreement called for the railroad to cease directly or indirectly requiring its employees to submit samples for genetic testing; to refrain from analyzing any blood samples that it already possessed; to refrain from evaluating, analyzing, or considering any genetic analysis previously performed on an employee; and to refrain from retaliating or threatening adverse action against employees opposed to genetic testing or those who took part

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111 *EEOC v. Burlington N. Santa Fe R.R., No. 01-4013 (N.D. Iowa filed Feb. 9, 2001).*


113 *Id.*

114 Dr. Phillip Chance, the creator of this particular genetic test, was disturbed by reports that the company had employed it in this manner because it was designed to uncover a disease that rarely causes carpal tunnel syndrome. See Patricia A. Roche, *The Genetic Revolution at Work: Legislative Efforts to Protect Employees*, 28 AM. J.L. & MED. 271, 276 n.36 (2002).


117 *Burlington N. Santa Fe R.R., No. 01-4013 (N.D. Iowa April 18, 2001)* (order granting preliminary settlement agreement).
in the EEOC proceedings. This case could have potentially opened the door to inclusion of genetic discrimination under the ADA. Unfortunately, no factfinder considered the case, and the ADA has yet to emerge as a key protection against genetic discrimination.

A pre-employment medical examination, however, would likely yield only information relevant to the possibility of disease, not evidence of a manifested disability, and thus would not violate the ADA. An employer could use medical information obtained to screen out genetically predisposed job applicants as long as the disease or condition could not reasonably be accommodated and “the exclusionary criterion is job-related and consistent with business necessity.” While this policy contravenes the requirement that all entering employees be subject to an examination if the employer wishes to condition an offer of employment on the results of a medical examination, the results are nonetheless being used in accordance with the provisions of the ADA. That is, a court will probably not consider the examination to be inquiring into a disability, and the court will thus convert what would otherwise be a clear violation under the ADA into an acceptable activity because the Act would no longer apply. Unlike in Burlington Northern Santa Fe Railroad, MLB is not testing for evidence of a genetic disorder that has already manifested symptoms. Therefore, the DNA testing policy is unlikely to fall within the ADA restrictions on employer medical examinations.

IV. BASEBALL’S DNA TESTING POLICY VIOLATES THE GENETIC INFORMATION NONDISCRIMINATION ACT

A. Background and Legislative History

In an effort to cure the apparent inadequacies of the ADA in the context of genetic discrimination, Congress passed the Genetic Information Nondiscrimination Act (GINA) in 2008. Broadly, GINA provides protections against the discriminatory use of genetic infor-

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119 See supra text accompanying notes 103–105. Again, even if a preemployment examination caused an employer to treat the employee as having a genetic predisposition, the protections of the ADA would not be triggered. See supra text accompanying notes 90–98.
120 GERARDS ET AL., supra note 84, at 165.
mation by both health insurers and employers. Congress recognized that advances in the sequencing of the human genome have provided major opportunities for medical progress, genetic testing, and individual awareness of susceptibility to disease and treatments. Such advances, however, give rise to “the potential misuse of genetic information to discriminate in health insurance and employment.”

To support the legislation, Congress provided examples of this misuse citing sterilization laws, sickle cell anemia screening programs, and pre-employment genetic screenings such as the ones at issue in

Additionally, both the House and Senate reports demonstrated a concern with preserving privacy of genetic information and the associated fear of its misuse. For example, the House report noted, “[t]he value of genetic information . . . is personal to individuals, who may choose to utilize this information to help guide . . . life decisions.” Moreover, the lack of complete information about the underlying genetic and environmental components of diseases and their relevance to patient care make regulation of the area difficult for policy makers. But regardless of the incomplete scientific understanding of genetic science, the Committee on Health, Education, Labor, and Pensions concluded that fears of discriminatory treatment are not hypothetical.

The Committee listed surveys and statistics demonstrating that employers currently or have in the past used genetic information to make hiring and firing decisions. With these problems in mind, the Senate report states that the protections provided by Title II of GINA (addressing the area of employment) are meant to mimic those of Title VII of the Civil Rights Act of 1964.

The testimony of the sponsors of the bill and others in Congress demonstrates this intention. For example, Representative Slaughter of New York, who introduced the bill, described it as the “first civil

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123 See id. § 2.
124 Id.
125 Id. at § 2(1).
126 Id. §§ 2(2)–(4); see also supra Parts II–III.
128 Id.
130 Id.; see also supra notes 65–69 and accompanying text. Further, employees do not have recourse under the ADA. See supra Part III.
rights legislation of the 21st century.\textsuperscript{132} She too provided anecdotal evidence of genetic discrimination and associated fears: a North Carolina woman was fired after a genetic test revealed a lung disorder even though the disorder was being successfully treated; an adoption agency refused to allow a woman at risk of developing Huntington’s disease to adopt a child; and numerous university studies that have identified fear of the use of genetic information by employers.\textsuperscript{133}

B. Statutory Language and Proposed Rules

Title II of GINA states in relevant part that it is unlawful for an employer to “fail or refuse to hire, or to discharge, any employee, or otherwise to discriminate against any employee” on the basis of genetic information.\textsuperscript{134} Also, an employer is prohibited from requesting, requiring, or purchasing the genetic information of an employee or family member of the employee, except for a few delineated statutory exceptions.\textsuperscript{135} “Employee” has the same definition as provided in the Civil Rights Act and thus includes any applicant for employment.\textsuperscript{136} A genetic test is one that analyzes human DNA, chromosomes, or mutations.\textsuperscript{137} The term “genetic information” includes genetic tests of the individual, genetic tests of a family member, and the manifestation of a disease or disorder of the individual or a family member.\textsuperscript{138} But relevant to the current discussion, the term “genetic information” explicitly excludes information about the age of an individual.\textsuperscript{139}

In November of 2010, the EEOC issued final rules for publication in the Code of Federal Regulations.\textsuperscript{140} In discussing the regulations corresponding to Title II of the Act, the EEOC offered interpretation of the purpose, definitions, and prohibitions in the Act.\textsuperscript{141} “Title II of GINA prohibits use of genetic information in the employment context, restricts employers and other entities covered by

\begin{itemize}
    \item \textsuperscript{133} Id. at H2957.
    \item \textsuperscript{134} 42 U.S.C. § 2000ff-1 (a) (1) (Supp. II 2008).
    \item \textsuperscript{135} Id. § 2000ff-1 (b).
    \item \textsuperscript{137} § 2000ff(7) (A).
    \item \textsuperscript{138} Id. § 2000ff(4) (A).
    \item \textsuperscript{139} Id. § 2000ff(4) (C).
    \item \textsuperscript{140} Regulations under the Genetic Information Nondiscrimination Act of 2008, 75 Fed. Reg. 68912 (Nov. 9, 2010).
    \item \textsuperscript{141} Id.
\end{itemize}
Title II from requesting, requiring, or purchasing genetic information, and strictly limits such entities from disclosing genetic information.\textsuperscript{142} The adopted regulations reaffirm that both the use of genetic information to make hiring decisions and the acquisition of genetic information are prohibited under GINA.\textsuperscript{145} More importantly, the regulations make clear that “[g]enetic tests include . . . DNA testing that reveals family relationships, such as paternity.”\textsuperscript{144}

\textbf{C. The DNA Testing Policy Violates GINA}

Two primary motivations exist for an MLB franchise team to request a DNA test from a prospective player. The first purpose is to prevent age fraud. The second purpose is to determine whether a player is susceptible to disease or injury. Whether or not MLB and franchise teams are acting with this second purpose is mere speculation; however, it is the fear of this motivation and its implications that both commentators and GINA address. Nonetheless, liability probably arises even without this purpose because merely requesting a genetic test, regardless of its purpose, violates the Act. I address the motivations separately to illustrate this point.

First, although the statute states “‘genetic information’ shall not include information about the . . . age of any individual,”\textsuperscript{145} and MLB seeks only the age of the player, the DNA testing policy would nonetheless fall within the confines of GINA because MLB is requesting genetic information from players to determine age.\textsuperscript{146} The definition of “genetic information” is likely designed to prevent a situation in which an employer requests an employee’s age and is then accused of impermissibly soliciting genetic information.\textsuperscript{147} Here, however, MLB requests a DNA test. There is a material difference between the use of age and the use of genetic testing to determine age.

Violations of GINA occur if an employer fails to hire an employee or discriminates against an employee because of genetic in-
An MLB team does not violate this provision of GINA. It is not refusing to hire employees because of genetic information as defined by the Act. Instead, it is refusing to hire on the basis of age fraud. The team’s decision is therefore made on the basis of age, not genetic information. This would seem to comport with the legislative purpose of the Act. That is, MLB is not discriminating against prospective players on the basis of information contained within a player’s genes revealing a chance of a debilitating disease, condition, or disorder. In short, this practice neither falls squarely within the text of the Act nor is it directly associated with the issues the Act is meant to address.

Nonetheless, MLB is still requesting a “genetic test,” defined by the Act as being an analysis of human DNA. Therefore, although the purpose of the request is merely to establish paternity and age, the request itself likely still violates the Act. The Act makes such a request by an employer for genetic information unlawful. Thus, the policy fits within a literal reading of the text. The application of GINA to this particular situation seems to confirm some fears expressed in the House committee report and by Burton J. Fishman and the GINE (Genetic Information Nondiscrimination in Employment) Coalition. Although the acquisition of genetic information in this case is not inadvertent, it does demonstrate that genetic information can be acquired without being used for discriminatory purposes. Further, if the purpose of Title II is to protect individuals from discrimination in employment on the basis of genetic information, then the MLB policy does not violate the “spirit” of the Act even though it seems to fall literally within the statutory language. Consistent with this concern,

148 Id. § 2000ff-1(a)(1).
149 Id. § 2000ff(7)(A).
150 Id. § 2000ff-1(b).
151 The House report expressed concern that Title II was overly broad. H.R. Rep. No. 110-28, at 66–67 (2007). Specifically, the report noted that restrictions on the acquisition of genetic information were “sweeping.” Id. at 66. Burton J. Fishman, speaking on behalf of the GINE Coalition, stated that he wished to limit the bill’s reach, suggesting "genetic information" should be limited to predictive genetic information. Genetic Nondiscrimination: Hearing on H.R. 498 Before the H. Comm. of Energy & Commerce, 110th Cong. 2 (2007) (statement of Burton J. Fishman, Of Counsel, Genetic Information Nondiscrimination in Employment Coalition). He stated, “Possession of genetic information must be differentiated from the use of such information for discriminatory purposes.” Id. at 6.
152 See United Steelworkers v. Weber, 443 U.S. 193, 201 (1979) (“[A] thing may be within the letter of the statute and yet not within the statute, because not within its spirit, nor within the intention of its makers.” (citing Holy Trinity Church v. United States, 143 U.S. 457, 459 (1892))). But see id. at 222 (Rehnquist, J., dissenting) (scolding the majority for ignoring the plain statutory language).
some argue that there is ambiguity in the definitions of “genetic information” and “genetic test” that may make it possible for the EEOC to create regulations so as to enforce GINA against MLB. Currently, as the plain language stands, the mere request for a DNA test—regardless of the nature of the use of the results—likely violates GINA.

Certainly, if the motivation behind the policy is to determine the susceptibility of disease or injury of the prospective players, GINA’s application is at its zenith. Such a request and use appear to be a clear and direct violation of the Act. It is unlawful for an employer to fail to hire, discharge, or otherwise discriminate against any employee as a result of the employee’s genetic information. It is also an unlawful employment practice for an employer to request genetic information from an employee or an employee’s family member. Therefore, MLB’s policy violates both of the prohibitions set forth in Title II of GINA, because the MLB team would be both requesting genetic information and using genetic information (such as a player’s fifty-percent chance of developing Huntington’s disease) to either refuse to honor a playing contract or to fail to renew such contract. Furthermore, it is this type of employer misconduct that the statute seeks to make unlawful. The purpose is to prevent discrimination on the basis of genetics. Requesting and testing a DNA sample for predisposition to disease and injury and then making hiring decisions based on this information is the type of employment practice directly repulsive to the statute.

153 Dan Vorhaus, MLB Meets GINA, GENOMICS LAW REPORT (July 22, 2009), http://www.genomicslawreport.com/index.php/2009/07/22/mlb-meets-gina/. Vorhaus suggests that because genetic tests used to establish paternity may analyze only a few genetic markers, such a test might not fit the statutory definition of “genetic test.” Id. Capitalizing off of this ambiguity, the EEOC, he suggests, could essentially regulate against or in favor of the MLB when it clarifies what tests constitute genetic tests. Id. See also Vorhaus, supra note 147, where Vorhaus again suggests that the EEOC could exclude from the definition of “genetic test” any test designed to ascertain the individual’s age.


155 Id. § 2000ff-1(b).

156 But see Ilya Gilman, Implications of the Genetic Information Nondiscrimination Act (GINA) on Professional Sports, ILL. BUS. LAW JOURNAL (Nov. 3, 2009), http://www.law.uiuc.edu/bjournal/post/2009/11/03/Implications-of-the-Genetic-Information-Nondiscrimination-Act-(GINA)-on-Professional-Sports.aspx (suggesting that an MLB team could argue that it backed out of a playing contract for a variety of legal reasons and that it would be difficult to prove that genetic discrimination was a contributing factor).

157 § 2000ff(a)(1); Id. § 2000ff(b).
A court has yet to interpret GINA or apply it to a specific set of facts such as the ones present here. It is unclear if any defense might be available in the MLB scenario. Might a litigant or court successfully draw parallels between GINA and the ADA or Title VII of the Civil Rights Act? For example, Title VII of the Civil Rights Act provides that “it shall not be an unlawful employment practice for an employer to hire and employ employees . . . on the basis of his religion, sex, or national origin in those certain instances where religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of that particular business or enterprise.” Health is arguably a bona fide occupational qualification necessary to the normal operation of a professional sports team. From there, an MLB team might argue that a valid defense lies in the request and use of a DNA sample to determine whether a prospective player will be able to carry out the necessary duties of his employment. Importantly, however, this type of defense, explicitly provided in the Civil Rights Act and the ADA, does not appear in GINA, nor was it contemplated anywhere in the legislative history. Some type of similar defense arguably should be included and is included in some state laws.

In addition to a contemplated statutory defense, a MLB team might argue a defense grounded in contract law. Although the idea of requiring DNA tests for prospective international players raises an ethical red flag, teams would argue that they are justified in protecting themselves from age and identity fraud. An affirmative false statement (here, a statement by the player that he is sixteen rather than twenty-years old) may be fraudulent misrepresentation for which MLB can legally seek rescission of the contract, especially if age is considered to be a material fact. This situation seemingly puts a va-
lid right to rescind a contract at odds with possible GINA violations. Perhaps there would be a defense in contract if a DNA test were the only way of protecting against age and identity fraud. For example, a team would face the prospect of age fraud because any request or requirement of DNA would violate GINA; but if a team were to continue with a DNA test anyway, it might later seek contract rescission due to fraud and use this judgment to justify the test. This argument fails, however, because a DNA test is not the only way to determine age. Good old-fashioned detective work paired with a bone scan can produce the same result as a DNA test. Ultimately, while a contract defense is probably predictable and likely even successful, GINA presents a separate issue, and liability under GINA is independent of any contract claim.

V. STATE LAWS ADDRESSING GENETIC DISCRIMINATION

GINA sets the floor for genetic discrimination statutes and does not preempt those state laws with greater protections. Beginning in the 1970s and continuing into the 1980s, state legislators began to react to court decisions concerning employment discrimination against applicants with sickle-cell anemia. But the state laws vary in content and differ in application. On one end of the spectrum are laws that specifically target discrimination of genetic traits associated with a particular race. For example, sickle-cell anemia is predominant in African-Americans, whereas Tay-Sach's disease is prominent in certain Jewish populations. On the other end of the spectrum are more comprehensive laws that prohibit any outright genetic discrimination in employment. As of 2008, thirty-six states provide genetic discrimination protection in the employment context. Any


164 “Nothing in this chapter shall be construed to limit the rights or protections of an individual under any other Federal or State statute that provides equal or greater protection to an individual than the rights or protections provided for under this chapter.” 42 U.S.C. § 2000ff-8(a)(1) (Supp. II 2008).


166 Trumble, supra note 70, at 779.

167 Id.


170 GENETIC EMPLOYMENT LAWS, supra note 165.
genetic discrimination in states without such laws or with laws offering less protection than GINA will be subject to review under GINA. This includes Ohio, where the Cleveland Indians and Cincinnati Reds are located.  

Because MLB teams across the country may conduct DNA tests on recruits, the differences in applicable state law could become very significant.

New York’s genetic-discrimination law, § 296(19) of New York’s Executive Law, provides that it is unlawful for an employer to “directly or indirectly solicit, require, or administer a genetic test to a person, or solicit or require information from which a predisposing genetic characteristic can be inferred” from an employee or applicant. But the law allows an employer to require a genetic test where the genetic information is directly related to the occupational environment and in which the employee, as a result, could be at danger. The law also allows genetic testing where consent is given.

The limited exception allowing genetic testing where the employee’s health could be at risk as a result of the job is of particular importance. This “is a likely loophole to the protections of section 296 . . . that allows for the submission of employees to genetic testing provided that a link is demonstrated between an employee’s suspected genetic anomaly and the dangers of a particular occupational environment.” Paul Trumble argues that had the New York Knicks subjected Eddy Curry to genetic testing as a condition of employment, the team would have been able to argue that testing for hypertrophic cardiomyopathy is related to his occupational environment, and that this genetic condition would put him at an increased risk of death as a result of practicing and playing professional basketball. The New York Yankees, a team that has recently been a victim of age fraud, might also be able to take advantage of this loophole, using a similar rationale, if it decides again to request DNA tests. The salient issue is whether GINA preempts the loophole. GINA offers no similar lawful practice of requesting DNA where a link can be demonstrated between a genetic anomaly and an increased risk of disease in

[171] Id.
[173] Id. § 292(19)(b); see Renee L. Cyr, Note, The Americans with Disabilities Act: Implications for Job Reassignment and the Treatment of Hypersusceptible Employees, 57 Brook. L. Rev. 1237, 1264–65 (1992) (discussing OSHA requirements that employees working around toxic substances be periodically tested to monitor for any effects that the toxins might have).
[175] Trumble, supra note 70, at 783.
[176] Id. at 784–85.
the work environment. The more stringent protections of GINA might preempt the loophole.

Ultimately, as twelve of the thirty-six states with genetic discrimination laws also are home to MLB franchise teams, the intersection of state genetic discrimination law and GINA is sure to be an issue. If requests to international recruits for DNA samples are litigated, courts will probably find themselves analyzing state law and GINA side-by-side. Moreover, teams would undoubtedly advocate, perhaps both in court and in Congress, for the adoption of defenses or loopholes like those in the New York genetic discrimination law.

VII. CONCLUSION

MLB and several franchise teams have encountered an age and identify fraud problem, specifically involving recruits from the Dominican Republic. Because teams pay high salaries with large bonuses to young players with significant potential, they go to great lengths to protect their financial investments in the players. In requiring the players to prove their ages, teams request DNA tests. DNA testing is particularly useful because it establishes the paternity of the parents claimed on the player’s birth certificate, which players often forge in order to appear younger than they truly are. A DNA test is then essentially a paternity test. Commentators and some scouts, however, are concerned that the DNA tests are kept and used to determine whether a player has a predisposition to disease or susceptibility to injury. The league itself has declined to say whether the samples are being kept.

The use of DNA is particularly controversial because it contains a wealth of information and its widespread use introduces the potential for abuse. DNA is a molecule found in the nucleus of all cells, but errors in DNA at birth or mutations acquired during life can cause disease when proteins are not made correctly, are produced excessively, or are not made at all. While age, is not a characteristic that can be directly determined by the analysis of DNA, the analysis may shed light on predisposition for debilitating diseases. In the employment context, the acquisition and misuse of genetic information has sparked fears that an applicant’s genetic profile can be discriminatorily used to deny or terminate employment. Employment in professional sports, however, arguably requires health and well-being as legitimate job qualifications. Professional sport employers depend on

178 See supra note 164.
the health of a relatively small number of employees for financial success.

There exist several potential legal protections against genetic discrimination. The ADA, although arguably covering genetic discrimination in employment, would probably not offer protection to prospective baseball players. Although the ADA protects individuals who are “regarded” as having impairment that substantially limits major life activities, courts and Congress have declined to include genetic predispositions in this definition, and thus the ADA would probably not protect someone regarded as have a genetic predisposition to disease. Further, despite the fact that the ADA places restrictions on pre-hiring medical examinations and disability-related inquiries, once an offer of employment has been made, the employer may condition that offer on a medical exam under certain conditions.

In contrast, GINA likely makes the MLB DNA testing policy unlawful. It would not matter whether the policy is aimed at preventing age fraud or whether the samples are kept and tested for predispositions to disease. The Act makes it an unlawful employment practice to fail to hire an employee because of genetic information or to request or require genetic information from an employee. GINA provides no applicable defenses in this situation, and it is unlikely that a court of law would consider one. Unlike Title VII of the Civil Rights Act and the ADA, GINA has no defense that excludes hiring and firing based on bona fide occupational qualifications. Also, while at first glance it appears that teams could have a defense in contract law for fraudulent misrepresentation; this defense is probably dubious considering that teams have numerous alternatives to DNA testing to protect themselves against fraud.

State law varies with respect to genetic discrimination. GINA provides a floor for regulation in this area but does not preempt states with equal or greater protections. The New York Genetic Discrimination Act makes it an unlawful employment practice to directly request a genetic test or information that would otherwise provide information about a genetic predisposition. The statute, however, contains a significant loophole: an employer may require a genetic test where a link can be demonstrated between the employee’s suspected genetic anomaly and the dangers of the occupational environment. But as this loophole makes the New York statute less protective than GINA, MLB might be unable to take advantage of it.

The MLB DNA testing policy certainly appears problematic at first glance. As it turns out, however, the policy is likely to receive legal scrutiny only under GINA. Furthermore, as the purpose of keep-
ing and testing DNA samples for susceptibility to disease and injury is speculative, a court would be left analyzing only the request for DNA used to determine age. Despite GINA’s exception for age, this practice does fall within a literal reading of the statute. MLB and its franchises should proceed carefully and with an eye towards the message that the policy presents to the public. An expensive and controversial DNA test is probably not needed, as alternatives such as bone scans and detective work can just as efficiently protect against age fraud. When investigating players like Damian Arredondo, the MLB could avoid the bioethics concerns and potential legal issues by simply hiring a private investigator.

Americans seem fearful about the misuse of genetic information. We cannot escape the truths that lie in our genetic profiles. This is most pertinent for professional athletes who, in part, are successful because of the talent that can only come from extraordinary genes. Nonetheless, all would rather be judged for who they are, not on what some genetic test predicts they might become.

It did not matter how much I lied on my resume. My real resume was in my cells. Why should anybody invest all that money to train me when there were a thousand other applicants with a far cleaner profile?179

179 GATTACA (Columbia Pictures 1997) (explaining the requirements of a prestigious career, Ethan Hawke’s character “Vincent,” is pessimistic that he qualifies).