

## GENETIC TESTS AND ITS IMPACTS ON SOME FIELDS OF HUMAN RIGHTS LAW

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### ABSTRACT

*Recent developments in biomedicine caused considerable conversion in the area of human rights law. This new dilemmas gave rise to many discussions all around the world as reflections of these developmets on the biomedical technology. On this point, we can mention that hereafter traditional human rights concept will not be same and it will be required to reconsidering this issue with different arguments. To illustrate, because of the genetic tests carry out in workplace we will need to find new solutions about the implements which leads to discrimination. According to this, after the possibility of human cloning by science, new varieties of human rights commenced to emerge in the human rights law like right to genetic privacy or right to know ones genetic origin. Thus, recent developments bring a new concept that can be named as a "biohuman rights". With this way, we can provide a better protection against all violations that head toward to human health safety or homo sapien. Nevertheless, recent innovations in biomedical area have new methods on designing fetuses as well as developments about human reproduction. In the wake of rapid progress in genetics technologies, collecting and analyzing of human DNAs receive its share form these innovations. Today, informations about an individual's present and future health can be reached with using small samples of tissue, blood or other body fluids. On the other hand, the special character of such genetic information and the potential risk to lead discrimination have caused great anxiety. In particular, privacy is under risk that unauthorized third ones can reach the informations produced by genetic tests. Therefore, these kind of problems will be untangled with new generation law rules.*

**Key Words:** *Genetic Tests, Biomedicine, Biohuman Rights, Genetic Researches, Discrimination.*

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## GENETİK TESTLER VE BUNUN İNSAN HAKLARI HUKUKUNUN BAZI ALANLARINA OLAN ETKİLERİ

### ÖZET

*Biyomedical alanda yaşanan yeni gelişmeler insan hakları hukuku alanında önemli çıkmazları da beraberinde getirmiştir. Bu yeni çıkmazlar biyoteknolojideki yeni gelişmelerin yansımaları olarak dünya genelinde pek çok tartışmaya neden olmuştur. Bu noktada geneleksen insan hakları konseptinin bundan sonra aynı olmayacağı ve konunun farklı argümanlarla tekrar ele alınması gerekeceği ifade edilebilir. Örneğin işyerinde gerçekleştirilen ve ayrımcılığa yol açan genetik test uygulamaları konusunda yeni çözümler bulmak gerekecektir. Buna göre, klonlamanın bilim tarafından mümkün kılmasının ardından insan hakları hukuku alanında kişinin genetik kökenini bilmesi hakkı ya da genetik gizlilik hakkı gibi yeni tür insan hakları ortaya çıkmaya başlamıştır. Böylece yeni gelişmeler “biyo insan hakları” olarak adlandırılabilen yeni bir kavramı beraberinde getirmektedir. Bununla birlikte, son biyomedical yenilikler üreme alanındaki gelişmelerin yanı sıra fetüslerin de dizayn edilebileceği yeni yöntemlere sahiptir. Genetik teknolojideki bu hızlı ilerlemenin ardından insan DNA’larının toplanması ve analizi konusu da bu gelişmelerden payını almıştır. Bugün, doku, kan ve vücut sıvısı örneklerinin kullanılmasıyla kişinin mevcut ve gelecekteki sağlık durumuna ilişkin bilgilere ulaşılabilir. Diğer yandan genetik bilgilerin özel durumu ve bunların ayrımcılığa yol açma tehlikesi büyük endişeye neden olmaktadır. Özellikle, genetik gizlilik, gen testleri sonucunda ortaya çıkan bilgilere yetkisiz üçüncü kişilerin ulaşması riski altındadır. Bu nedenle, bu tarz problemlerin çözümü yeni nesil hukuk kurallarıyla olacaktır.*

**Anahtar Kelimeler:** *Genetik Test, Biyotıp, Biyo İnsan Hakları, Genetik Araştırmalar, Ayrımcılık.*

### 1. INTRODUCTION

New technologies in biomedical area have new methods and implementation about human life. According to this these technologies use everyfield of today’s social life. For instance, process of having a baby can includes third ones as surrogate mother or a baby can have different parental relationship with some different people. On this point, we can utter that future parental concept conceive new settings and all determinations came from inception of human existence can be revisioned again. There are many new

terms are used several times in literature like surrogate mother, bioparent, spermfather or ovimother etc. Further more, even if being alone theoretically enough to have a baby owing to cloning thecnology. Nevertheless, human right regulations need new patterns and impact of biomedical innovations spawn some serious problems in terms of protection of human rights and because of this, human right regulations need new patterns. Therefore, it is required that biologic human rights should be regulated in constitutions can be named as "*constitutions of twenty-first centuries*". In this paper, we try to explain relationship between new biomedical implementations, especially genetic tests, and human rights law.

## **2. GENETIC TESTS, RIGHT TO LABOR AND ACTING INSURANCE POLICY**

Genetic testing came a point that has reasoned some opportunities and some dilemmas for personal health care as well as public health systems. According to this, dicovering the sequencing of the human genome and recent improvements in areas have produced new diagnostic and therapeutic procedures as well as opening new ways on discussions. If these discussions and rapidly advences are though together, it has brought out policy challenges to providers and other stakeholders, such as employers, insurers, practitioners and the legal system as well as patients.<sup>1</sup> All sides are metnioned have a relationship with human rights due to connection with genetic tests. Because, genetic tests implementations commence to extend in the worl wide brought some problems about the violation of human rights. To illustirate, before recruiting implementing genetic tests to determine some future illnesses are abviously contrary human rights protection. If we restirict right to labor with this way, it will lead to discrimination and impossibilities about the protection of peoples' future. In this point human rights concept should de considered in the context of protective approaches. For this reason, thinking of genetic tests as a general rule for a previous stage of recruiting is unacceptable. However, there can be some exceptions and due to this reason full preservation policy can be changable if it is faced different stuations. If genetic tests necessary for structure of job or protection of workers own health, it can be exerted. Apart from these exemptions, genetic tests for recruiting to work has to be banned. Otherwise, employers, insurers, and other third ones can initiate with economic anxiety and try to access to genetic information from present or previous tests results regardless of considering individuals's rights. In response to this kind of attempts,

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<sup>1</sup> KHOURY, Muin J., Genetics and Genomics in Practice: The Continuum from Genetic Disease to Genetic Information in Health and Disease, Genetics Med. Vol.5, 2003, pp.261.

governments, legislatures and international organizations have acted to ensure the protection of the right to genetic privacy in society.<sup>2</sup> Moreover, a number of reports show that companies increasingly introduce obligatory medical tests for their employees in the U. S. Employees who refused to participate in the tests can face risk to lost the health insurance provided and financed by the company.<sup>3</sup> Because of such negative effects of genetic tests, United States and some European countries have commenced to enact legislation addressing discrimination that genetic testing might cause.<sup>4</sup> The decision to take a genetic test and the decision to disclose its results may create asymmetries of information that eventually break the equilibrium between insurers and policyholders. Furthermore, even when legal protections prohibit genetic discrimination in the workplace, few trust that all parties will fully comply with these laws.<sup>5</sup> Therefore, it is not enough to only make suitable rules, but it has to be arranged strong inspection mechanism. Nevertheless, some authors classify the acts according to the insurance fields. To illustrate, coercion or violation of human rights would not be involved if genetic tests was necessary for life insurance bought in the context of mortgages for houses or in other commercial contexts. For this opinion, talking of coercion can only be legitimate in the context of insurance for vital risks. In this point raising a mortgage is not, at least in general, of a vital character.<sup>6</sup> On the other hands, ethical concerns about genetic testing with the aim of selecting workers for employment for hazardous working conditions have been voiced for some time in the literature on cancer risks.<sup>7</sup> However, line between two status has to draw clearly. If genetic tests practice is implemented pre-working term since it is necessity to preserve employees safety of health, it will not be a matter for human rights issue. Because, we should deal with genetic tests as a precondition of recruitment. Therefore, it has not to confused that check up the employees healt conditions and testing (genetic or not) some health conditions differ form discrimination practises. For this reason, there may be circumstances under which even forcible genetic testing might be approved by considerations of beneficence, when genetic testing is the only

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<sup>2</sup> BECKMAN, Ludvig, *Scientific ContributionDemocracy and Genetic Privacy: The Value of Bodily Integrity, Medicine, Health Care and Philosophy*. Vol.8, 2005, pp. 97.

<sup>3</sup> BIRNBACHER, Dieter, *Thresholds of Coercion in Genetic Testing*, *Medicine Studies*. Vol.1, 2009, pp.97.

<sup>4</sup> HOGARTH Stuart, JAVITT Gail, MELZER David, *The Current Landscape for Direct-to-Consumer Genetic Testing: Legal, Ethical, and Policy Issues*, *Annual Review Genomics & Human Genetics*. Vol.9, 2008, pp.171.

<sup>5</sup> KATZ Gregory, SCHWEITZERT Stuart, *Implications of Genetic Testing for Health Policy*, *Yale Journal of Health Policy, Law and Ethics*. Vol.10, 2010, pp.93.

<sup>6</sup> BIRNBACHER, 2009, pp.103-104.

<sup>7</sup> VINEIS, P. SCHULTE, P.A. *Scientific and ethical aspects of genetic screening of workers for cancer risk: The case of the N-acetyltransferase phenotype*. *Journal of Clinical Epidemiology*. Vol.48, 1994, pp.195.

means available to prevent considerable harm to employees.<sup>8</sup> The reason for this position is more than just the traditional approach for patient privacy and the need to maintain the integrity of the patient-physician relationship. The matter is the risk of stigma and discrimination, especially in access to health insurance and employment. For example, many people who reveal genetic test results to their health or life insurers report that they are refused insurance or that their policies are annulled.<sup>9</sup> Because of hazardously use of genetic tests against human rights, particularly in insurance sector the issue should be elaborately regulated by authorities. On this point, it will be clear that genetic testing as a compulsory provision is considered that contrary right to acting agreements. To illustrate, a distinguished method is performing in Germany. For this method, concerns about compulsory genetic testing have led to a 12-year moratorium on genetic testing in buying private insurance for health, life and the inability to exercise one's profession, mainly in response to public reservations against genetic tests, in Germany. As long as the moratorium runs, no diagnostic tests and no medical examinations must be required in entering an insurance scheme apart from filling in a health questionnaire. In this terms examinations and tests may only be required with very high insurance sums like 250,000 Euro or higher amounts and with a higher age of entry. So far, it is uttering that no legal ban on genetic testing in routine private insurance has been instituted. Nevertheless, the German Constitutional Court in its decision of 23 October 2006 dated has considerably strengthened the rights of the insured against insurance companies by limiting the extent to which insurance companies are allowed to acquire information about the health status of their clients from physicians and hospitals without permission of the clients.<sup>10</sup>

### 3. GENETIC TESTS AND PREVENTIVE MEDICINE

Preventive medicine or preventive care can be described taking measures to prevent diseases rather than curing them or treating their symptoms. According to this description, there are a strong affair between two concepts; genetic tests and preventive medicine. In the light of this, with recent genetic screening technologies diseases can be detected and taken some measures for destructive impacts of illnesses. The impending explosion of genomic information coupled with advances in human genetics and molecular biotechnology is

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<sup>8</sup> BIRNBACHER, 2009, pp.104.

<sup>9</sup> MAXWELL, Mehlman, The Privacy of Genetic Information, ([www. thedoctorwillseeyounow.com/content/bioethics/art1981.html](http://www.thedoctorwillseeyounow.com/content/bioethics/art1981.html) 25 May 2011)

<sup>10</sup> BIRNBACHER, 2009, pp.97.

rapidly expanding our ability to identify genes influencing.<sup>11</sup> On the other hand, it has also got some risks against right to privacy. Therefore, the challenge of regulating genetic testing is to create a strong framework that enables patients to access health care and targeted treatment without fear of misuse or discrimination based on their genetic origin.<sup>12</sup> Although there are many reasons can be accounted cause to deseases, two of them, environmental and genetic factors are distinguished. When risk factors and precursors for disease are handled it will be seen that they usually become apparent in adolescence or later in life and are often curable with preventive interventions. However genetic factors have been viewed as intransigent, immutable, and heritable.<sup>13</sup> At the same time, as we know, determinig environmental factors reason to deseases possible with genetic tests. Shortly we can see that genetics, public health, and preventive medicine also intersect in an emerging paradigm of disease prevention—the identification and modification of environmental risk factors amongst persons prone to disease because of genotype.<sup>14</sup> On the other hand, the number of deseases for which a test is available has grown at an average yearly rate of 12 percent since 2002.<sup>15</sup> For this reason, practitioners of preventive medicine and public health should be actively involved in educating patients and rising public caution of the availability, benefits, and limitations of genetic screening.<sup>16</sup> Moreover, it is clear that early diagnose with genetic tests diminishes the public expenditures. Because tests for other genetic conditions may allow for the identification of subgroups of patients who are more or less likely to benefit from preventive policy such as the use of cholesterol-lowering drugs and replacement estrogens.<sup>17</sup> Therefore, expenditures to care of patient prevent before the existence of deseases. In the near future, the identification of genotype through genetic screening might allow for the identification of persons truly at high risk for an illness, proposed medical interventions and improved allocation of health care budget.<sup>18</sup> On this point, we should point out that matters

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<sup>11</sup> ELLSWORTH, Darrell L. Coronary Heart Disease at the Interface of Molecular Genetics and Preventive Medicine, *American Journal of Preventive Medicine*, Vol. 16, Number 2, 1999, pp.131.

<sup>12</sup> BARCLAY Lizabeth, MARKEL, Karen, Discrimination and Stigmatization in Work Organizations: A Multiple Level Framework for Research on Genetic Testing, *Human Relations*. Vol.60, 2007, pp.957.

<sup>13</sup> COUGHLIN Steven, The Intersection of Genetics, Public Health and Preventive Medicine, *American Journal of Preventive Medicine*, Vol.16(2), 1999, pp.89-90.

<sup>14</sup> OMENN, Gilbert, Genetics and Public Health, *American Journal of Public Health*. Vol.86, 1996, pp.1701-1703.

<sup>15</sup> KATZ, SCHWEITZERT, 2010, pp.94.

<sup>16</sup> McKINNON WC., BATY BJ., BENNETT RL., kısalmalar, atıf düzeni!! et al. Predisposition Genetic Testing for Late-Onset Disorders In Adults. A Position Paper Of The National Society Of Genetic Counselors, *Journal of American Medical of Association*. Vol.278, 1997, pp.1217.

<sup>17</sup> COUGHLIN, 1999, pp.89-90.

<sup>18</sup> COUGHLIN, 1999, pp.89-90.

like protecting privacy, or forbide discriminations aren't a reason for giving up practising genetic tests. Because it brings so many benefits in terms of curing patients. Therefore, physicians who work on preventive medicine will need to keep abreast of improvements in genetic testing and screening so that they can provide information to their patients. At the same time, they will contribute to the appropriate use of such testing and help to combat against inappropriate use. To achive success is possible with the introduction of new genetic technologies in public health and clinical medicine will require arranging professional education opportunities for physicians and other health professionals.<sup>19</sup> Because of this fact, national and international guidelines initiate to prepare and educate health professionals to prescribe genetic tests and interpret their results.<sup>20</sup> By the way, genetic test or screening implementation can be perform from inception of fetus. According to this with the same genetic testing facilities, navigenics submits secondary prevention through early diagnosis, while Labgenetics offers primary prevention through embryo screening. All sorts of innovation converted the perception about physician-patient relations. With this way, the revolution of consumer genomics has made a shift away from a physician-controlled approach towards a patient-based system.<sup>21</sup> However, some side effects have been with this kind of benefits. For example, internet facilities can be harmful for new innovations. Internet has had the effect of allowing genetic testing to bypass the physician utterly, which brings another set of issues to the forefront, including the need for interpretation and counseling.<sup>22</sup> One of other benefits of genetic tests appear in ealry detection before vision of desease symptoms. As a primary focus of preventive medicine expands to encompass early detection and treatment of asymptomatic individuals at risk for disease. In this point, the possibility to quantify the influence of context-dependent effects on disease risk will be critical for determining drug safety and effectiveness in diverse patient populations and for performing effective prevention and treatment strategies.<sup>23</sup> For instance, genetic testing for childhood asthma may improve the predictive value of environmental factors such as allergens or indirect exposure to cigarette smoke. The identification of gene–environment interplays in the etiology of

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<sup>19</sup> NIH-DOE, Working Group on Ethical, Legal and Social Implications of Human Genome Research, Task Force on Genetic Testing. Promoting Safe and Effective Genetic Testing in the United States. (<http://ww2.med.jhu.edu/tfgtelsi/promoting>, 24 May 2011)

<sup>20</sup> EMERY Jon, HAYFLICK Susan, The Challenge of Integrating Genetic Medicine into Primary Care, *British Medical Journal*. Vol.322, 2001, pp. 1029.

<sup>21</sup> FOSTER, Morris, SHARP Richard, The Contractual Genome: How Direct-to-Consumer Genomic Services May Help Patients Take Ownership of Their DNA, *Personalized Medicine*, Vol.5, 2008, pp.399.

<sup>22</sup> KATZ, SCHWEITZERT, 2010, pp.93.

<sup>23</sup> ELLSWORTH, 1999, pp.122.

osteoporosis could result in preventive and curable interventions for middle-aged persons at risk for later worse stages of the disease.<sup>24</sup>

#### 4. GENETIC TESTS AND EUGENISM

In fact, eugenism has a conceptual breadth. Therefore description of it a bit difficult. However, eugenism can be describe that applied science or the biosocial movement which advocates the use of practices targeted at developing the genetic composition of a population. By the way, in description it means that it usually refers to human populations.<sup>25</sup> On the other hand, we can shortly highlight the concept of eugenism; the blend of factors and influences most appropriate for the improvement of the inherited characteristics of a breed or race, especially the human race.<sup>26</sup> In contemporary bioethics literature, the history of eugenics presents many moral and ethical questions. Authors have suggested the new eugenics will come from reproductive technologies that will allow parents to designe their babies. This will be ascendantly encouraged by individual competitiveness and the desire to set up the best opportunities for children, rather than an urge to improve the homo sapiens as a whole, which characterized the early 20th-century forms of eugenics. Nevertheless, by the middle decades of the twentieth century, eugenics had become broadly accepted throughout the whole of the economically developed world, with the exception of the Soviet Union.<sup>27</sup> By the way, debate and concern about the ability to manipulate human life through the use of reproductive technologies is not among recent issues.<sup>28</sup> However, developments in genetic, genomic, and reproductive technologies have given rise many new questions and anxieties about the meaning of eugenics and its ethical situation. On this point, another issue should be dealt with is preimplantation genetic diagnosis (PGD). PGD is used following in vitro fertilization to determine a genetic disease in a preimplantation embryo. PGD is essentially an alternative to prenatal diagnosis, as it allows prenatal testing to occur months earlier than conventional tests such as amniocentesis.<sup>29</sup> May be we can name new age pregnancies as “designable pregnancies” here after PGD technic. After all, it is the main point of PGD that it refers to a process of testing embryos prior to implantation in order to

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<sup>24</sup> KHOURY Muin J, Genetic and Epidemiologic Approaches to the Search for Gene-Environment Interaction (The Case Of Osteoporosis), *American Journal of Epidemiology*. Vol. 147, 1998, pp.1-2.

<sup>25</sup> National Library of Medicine, Eugenics, (<http://ghr.nlm.nih.gov/glossary=eugenics> 22 May 2011).

<sup>26</sup> The Free Dicitonary, Eugenism, ([www.thefreedictionary.com/eugenism](http://www.thefreedictionary.com/eugenism), 23 May 2011).

<sup>27</sup> RICHARD, Lynn, *Eugenics: A Reassessment*, New York, 2001, pp.18.

<sup>28</sup> MUTCHERSON, Kimberly, *Making Mommies: Law, Pre-Implantation Genetic Diagnosis and The Complications of Pre-Motherhood*, *Columbia Journal of Gender and Law*. Vol.18, 2008, pp. 313.

<sup>29</sup> National Institutes of Health, National Human Genome Research Institute, *Reproductive Genetic Testing*, ([www.genome.gov/10004766](http://www.genome.gov/10004766), 23 May 2011)



determine various genetic characteristics. Pre-implantation tests often use to determine whether the future child will have a particular disease or disability, but tests can also be used simply to determine sex.<sup>30</sup> By this way, PGD can emerge a kind of information and can be put to many uses. By examining a single cell from a day old eight-cell embryo, a physician can determine whether the future child will be male or female, which is important information when a genetic disease is gender linked.<sup>31</sup> In this point, some criticals come up about gender discrimination. Because of possibility to determine fetuses' gender in early term, parents can be in an aim to put end pregnancy towards their wishes about choosing gender of babies. On the other hand, preimplantation diagnosis should bring some admission standards for all fetuses produced by such techniques.<sup>32</sup> Similarly, companies such as Spain-based Labgenetics offer couples undergoing artificial reproductive technology the opportunity to use genetic tests to screen embryos through PGD.<sup>33</sup> In this rapidly growing sector some violations can occur because parents ambitiously desire to have an almost perfect baby as much as it can be produced. As the use of technology commence to spread, it is necessary to earnestly evaluate how calls to regulate this technology, by constraining access to or limiting particular uses of particular technologies, will impact long-standing conundrums about reproduction, parenting, and the law.<sup>34</sup> According to this, any procedure that provides information that could lead to a decision to terminate a pregnancy is not without controversy. Although prenatal diagnosis has been routine for nearly 20 years, some ethicists remain concerned that the possibility to dissolve potential offspring with genetic defects contributes to making society overall less tolerant of disability. Some pinions have been argued that prenatal diagnosis is sometimes driven by economic concerns because as a society we have chosen not to provide affordable and accessible health care to everyone. Thus, prenatal diagnosis can save money by preventing the birth of defective and costly babies. As reproductive genetic procedures that involve greater risk to the fetus, preimplantation diagnosis concerns remain about whether the diseases being averted safer way about the risks involved in the procedures themselves. Under the these concerns are likely to raise, cloning or germline gene transfer should be undertaken as a way to genetically test and select healthy offspring.<sup>35</sup>

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<sup>30</sup> MUTCHERSON, 2008, pp. 313-314.

<sup>31</sup> National Institutes of Health, 2011.

<sup>32</sup> SAXTON, Marsha, Why Members of the Disability Community Oppose Prenata Diagnosis and Selective Abortion, (eds.) Erik Parens, Adrienne Asch, in Prenatal Testing and Disability Rights, 2000, pp.158.

<sup>33</sup> Labgenetics, Gen Tests, ([www.labgenetics.com.es](http://www.labgenetics.com.es), 22 May 2011).

<sup>34</sup> MUTCHERSON, 2008, pp. 313.

<sup>35</sup> National Institutes of Health, 2011.

## 5. GENETIC TESTS AND GENETIC PRIVACY

Some authors even argue that there is no single correct description of genetic privacy.<sup>36</sup> Although this, may be we can generally explain genetic privacy with this way: Genetic privacy relates to the complex set of issues surrounding how DNA information about individuals is handled and used. On this point discussions around genetic privacy focus two main centre. Some genetic privacy issues relate to the acquisition of DNA samples from individuals, other genetic privacy issues relate more to what is done with the DNA information later.<sup>37</sup> However in the light of general perception about genetic privacy it can be urged that information of genomic structure of people remain particularly or in some cases totally limited against to access third ones. In this point, I suppose that focusing context better than description of genetic privacy. As a matter of fact that many contry realised importance of protection of genetic privacy by law. According to this, the right to genetic privacy figures in US State legislation, in Norwegian law and in many other places. The right to genetic privacy also figures in declarations such as the “Genetic Bill of Rights” endorsed by American geneticists and bioethicists. At the same time, similar statements are found in documents adopted by the UNESCO and the European Council. Today, it seems that right to genetic privacy is presently being incorporated in legal systems all over the world. Nevertheless, it remains largely unclear what interests and values this right serves to protect. There are many variety of arguments made in the literature, but none takes into consider the problem of how particular values can be reasonable given the plurality of moral and religious doctrines in our societies.<sup>38</sup> In this point, it can be follow Laurie’s observation that the concept is used in two distinct contexts, referring to the spatial and the informational dimensions of genetic privacy.<sup>39</sup> At a first sight, privacy rights are generally concerned with the protection of the physical space in the spatial concept. However, we particularly take into consideration informational dimensions of genetic privacy. In this point, Allen claims that notions of physical privacy have taken the “back seat” in recent discussions of genetic testing to show difference between two dimensions of privacy.<sup>40</sup> Nevertheless, in the general level it can be said that informational privacy rights are concerned with the protection from publicity of particular facts about our lives. This may

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<sup>36</sup> SANKAR, P. Kısaltma !Genetic Privacy, Annual Review of Medicine. Vol.54, 2003, pp. 393.

<sup>37</sup> Genetic Privacy Page, What is Genetic Privacy, ([www.worldprivacyforum.org/geneticprivacy.html](http://www.worldprivacyforum.org/geneticprivacy.html), 25 May 2011).

<sup>38</sup> BECKMAN, 2005, pp. 97.

<sup>39</sup> LAURIE, Graeme, Genetic Privacy, A Challenge to Medico-Legal Norms. Cambridge: Cambridge University Press, 2002, pp.34-48.

<sup>40</sup> ALLEN, Anita, Genetic Privacy: Emerging Concepts and Values, in: M. Rothstein (ed.), Genetic Secrets: Protecting Privacy and Confidentiality in the Genetic Era. New Haven: Yale University Press. 1997, pp. 35.

includes facts about the individual's sexual habits, political and religious convictions, health status and seemingly also facts about the genetic constitution of the individual. Legal norms securing the right to privacy of information include standards for the collection, storage and transfer of computerized data, medical records etc.<sup>41</sup> Eventually, in the general concept of protection of privacy one of the notable subject in the human rights area. However, protection of genetic privacy is more sensitive than general concept. In fact, this reality springs from a rich information connection. For example, one's genetic informations close all family members. Therefore, new rules should be adapted comply with conditions of genetic informations

## 6. CONCLUSION

Genetic tests commence to diffuse our life with a rapid increase. For this reason, it can be seen both of negative and positive sides at the same time. It is clear that genetic tests benefits overrides its damages. Furthermore, genetic tests has an importance in terms of public health and it has been argued that compulsory testing for genetic disorders might cease the spread of genetic disease.<sup>42</sup> However, it doesn't come a meaning that it is not necessary try to minimize damages of genetic tests implementations. People generally battled to entitle their fundamental human rights against kings, feudal masters or dictators through out history of humanity. However, humankind is upon a cornerstone interms of restoring general human rights perception. Today, we can see that classical protection walls of human rights don't have enough capacity to prevent violations towards human rights. In this point the situation can be shortly formulated like this; new era needs new generation perceptions in terms of every fields of human rights.

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<sup>41</sup> BECKMAN, 2005, pp. 98.

<sup>42</sup> MASON, J.K, LAURE, G.T. Law and Medical Ethics, Oxford, 2011, pp.241.

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