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## Ethical and legal perspectives on inherited cancer susceptibility

BARTHA MARIA KNOPPERS and BEATRICE GODARD

### Summary

There is a complicated interplay of public perceptions, expectations and demands upon professionals in relation to genetic testing for cancer susceptibility and the medical services offered. The ethical and legal aspects of these relationships are explored in this chapter, with particular reference to the issues of consent and confidentiality, employment and insurance, and testing of minors and incompetent adults. The chapter concludes with consideration of issues surrounding ownership and patenting of genetic information, and a proposal for principles to serve as a basis for shared responsibility for patient participation in the development of guidelines for such genetic testing.

### Introduction

Much media debate tends to encourage taking sides for and against familial testing and population screening for genetic factors in common multifactorial diseases such as cancer. Positions are presented in phobic and polemic language. Typical, are allegations of 'slippery slope', 'playing God', 'biotechnological imperialism' or of 'scientific breakthrough' and 'gene for cancer found'.

New discoveries of the role of genetic factors in multifactorial diseases do not translate into treatments or cures but rather into information and in some cases, prevention. What we have then are scientific facts expressed in risk factors. Such at-risk information is often couched in incomprehensible probabilities and percentages using the language of susceptibility, predictivity, presymptomatic, expressivity, penetrance, late-onset, carrier status, and the like.

Furthermore, problems may arise in testing for late-onset diseases where the detection of the defect is possible before the clinical symptomatology has occurred.<sup>1</sup> The results of such testing do not provide an unequivocal answer; they only give probabilistic information on whether an increased risk exists. Also, there may be variable clinical expression in persons with an identical molecular defect, regarding the age of onset or the severity of the disease. A variety of modifying genes may alter clinical expression of a given molecular defect. Moreover, the mutations will differ between populations, and testing for many mutations that may be involved is usually not feasible.

This new phenomenon of susceptibility testing is important since little is known of the psycho-social impact of such genetic information. A recent study of breast cancer testing showed that normal results from genetic tests did not reassure women who had long believed that they were at risk for breast cancer because many of their relatives had died of the disease. Most of the women who were told that they did not have the disease gene still wanted frequent mammography and were thinking seriously about having their breast(s) removed as a form of prophylactic surgery (Vines 1994). Even in the case of Huntington disease, a monogenic disorder for which the gene has been identified, the uptake has been quite low and the behavioural responses unexpected (Anonymous 1994b).

Furthermore notions of 'normalcy' and 'disability' have long been culturally defined. Perception of being at risk as equivalent to being ill or disabled can only exacerbate discrimination and lead to the broader harm of geneticisation (Wolf 1995). Moreover, where present or future conditions can be discovered in the embryo, fetus or newborn, who decides what course of action to take?<sup>2</sup> Current guidelines governing research and clinical practice may not suffice in the ensuing ethical, legal, social, and personal dilemmas.

1 According to Annas (1992), important factors in determining whether a test should be offered include: (1) the frequency and severity of the disease; (2) the availability of a therapy of documented efficacy; (3) the extent to which detection by testing improves the outcome; (4) the validity and safety of the genetic tests; (5) the adequacy of resources to assure effective genetic testing and follow-up; (6) the costs in relation to the benefits; and (7) the acceptance of the genetic testing programme by the community, including both consumers and practicing physicians.

2 This chapter will not discuss embryo, prenatal or newborn testing. It is interesting to note, however, that in the case of prenatal diagnosis, the Royal Commission on New Reproductive Technologies (1993), recommended that physicians provide information concerning predisposition to serious late onset conditions as well as the availability of

There is no doubt that consumer pressure and expectations of professionals will influence liability. Are there professional norms to guide researchers, physicians, and counsellors, or, will they simply assume responsibility, if not liability (see section 'Liability')? Furthermore, it may well be that ethical guidelines, where they exist, can do little to stem already accepted access to medical records. If treated as medical information so as not to distinguish genetic information as being 'different', neither confidentiality nor access rules are clearly defined in the public or private sectors (see section 'Privacy and confidentiality').

Selection and recruitment issues also come to mind since early information, detection and prevention may be the only 'cure'. Children and adolescents are particularly vulnerable groups not only because of varying degrees of capacity to comprehend and consent but because of parental authority in the former and peer group pressure in the latter. While such vulnerability need not exclude them altogether, different evaluation and inclusion mechanisms could be necessary (see section 'Vulnerable populations').

Also present in the current debate is the possibility of socio-economic discrimination in terms of equitable access to employment and insurance (see section 'Employment and insurance'), to say nothing of the resulting stigmatization of genetic 'at-risk' families and individuals. It is at this point that the role of third parties such as employers, insurers and researchers as 'corporate citizens' becomes an issue. There may be both legitimate and illegitimate uses of genetic material and information. Screening employees to detect those at risk in certain work conditions or asking health questions on insurance questionnaires, or using DNA in research after obtaining consent and approval by ethics committees at first glance seems legitimate. But who verifies that the insurance industry's actuarial tables are scientifically valid and have included in the probabilistic value of this new at-risk information?

Closer to home for most researchers and for the participants themselves is the question of the status of human genetic material as currently

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abortion but decided against recommending the same for susceptibility testing. The Royal Commission on New Reproductive Technologies (1993) recommended that: 'Prenatal diagnosis not be offered for genes that increase susceptibility to disease' (p. 881). 'Prenatal susceptibility testing is even less appropriate than adult testing, because the benefits are even fewer and the potential harms greater. Like prenatal testing for late-onset single-gene disorders, prenatal susceptibility testing puts children in a very vulnerable position if they are shown to be at greater risk' (p. 880).

sampled and banked. Is DNA, as found in all cells, to be treated as any other sample? To whom does it belong? What can be patented and when? (See section 'Ownership and patents'.)

Finally, even if clear legal and ethical parameters would be adopted after public debate, the very principles of autonomy, privacy, justice, and equity could well be undermined by systemic failures and frailties (Knoppers and Chadwick, 1994). Informatic and technological capabilities of access and possibly of abuse, surpass even the imagined protection of genetic material and information. Moreover, equitable access is threatened by private clinics that operate in the failure of governments both to integrate the new genetics into the health care infrastructure and to determine priorities and future directions. Current international, national, or state statutes and professional codes have yet to be officially and openly debated and interpreted in order to determine their adequacy in face of this challenge.<sup>3</sup> The controversies surrounding inherited cancer susceptibility studies encompass all these issues. An attempt at their solution may serve as a prototype for other multifactorial conditions.

### **Liability**

Beginning then with the issue of medical liability and genetic testing, a recent study of professional norms in the practice of human genetics, stated that 'medical malpractice law is expensive, time consuming and is arguably not an effective mechanism for quality assurance' (Knoppers et al., 1996). As we move from the monogenic to the multifactorial arena of human genetics, with the concomitant increase in knowledge and in communication skills that this will require, genetic malpractice may well become an issue since there are few formal standards of requisite education or competence through which to protect the public. Genetic susceptibility being only one factor amongst environmental, socio-economic, cultural and familial factors, the very nature and art of counselling and communication or even the opportunity to express the desire not to know, will require a fundamental restructuring of the physician-patient relationship. Medical advice becomes an important issue when a condition can be prevented or treated (Motulsky, 1994). Non-directive advice, which is strongly advocated in reproductive counselling, may be inappropriate, since at-risk, probabilistic information must be explained and the relevant medical recommendations of how to avoid and prevent the

<sup>3</sup> There is little statutory law on genetic testing (Knoppers and Chadwick, 1994).

disease under study must be given. Often, as in predictive diagnosis of cancer, no clear therapeutic intervention other than more frequent monitoring may be available. It is difficult to provide recommendations that apply equally to predictive diagnosis of all late-onset diseases, since every condition raises somewhat different scientific, medical and psychosocial issues (Motulsky, 1994).

Physicians are not obliged to perform genetic testing on demand when it is not indicated. As with any genetic test, the physician should explain the test, its purpose, what could be learned and what action could be taken on the basis of this knowledge, as well as the possible alternatives and the consequences of not undergoing the test. The basic concept is that people have a right not to be touched without their consent because of their interests in bodily integrity and self-determination. The patient is the one who must experience the test and live with its consequences. There is no obligation on the part of the patient to accept any medical test or medical treatment.

It should be emphasized that if the physician believes genetic testing is indicated for a particular patient and recommends it, and the patient refuses, the physician has an obligation to make sure that the refusal is an informed one, that the patient knows why genetic testing is being offered, what can be learned from it and what could happen if the test is not performed. The refusal should be explored and the reasons documented in the patient's chart. A Californian case held that a family physician, whose patient had refused a Pap smear on two occasions and later died of cervical cancer, had a legal obligation to obtain an informed refusal from her before accepting her refusal at face value (Annas, 1992).

In addition to the issue of competence then, liability will be increasingly centred on failure to communicate actual or potential 'at-risk' information rather than on classical malpractice during an intervention or diagnostic technique. This duty to communicate is not only complicated by the at-risk nature of susceptibility information but also by the fact that the duty implies providing choices and in that the duty may continue over time.

As concerns choices, different levels of participation should be presented so that a person can decide to participate fully or to know fully, partially or not at all. This means that choices must be offered – i.e. to be contacted, to participate, to provide DNA, to be informed of results, to allow different forms of research with that DNA, to allow family access to that DNA, and finally, for the DNA to be banked or not (Knoppers and Laberge, 1995).

The continual refinement of genetic knowledge and testing, also expands the duty to follow up. To this duty now may be added a new duty, that of 'look-back' – also a variant of the duty to recall as developed in cases of defective products or of HIV infected blood. In a recent Canadian case, the Court held that the family physician was in breach of his duty to disclose when the head of the hospital blood bank advised him that his patient's transfusion years earlier had been with a potentially HIV-contaminated blood component. The patient died of HIV-related pneumonia without knowing his status and in that same year, the widow learned that she was HIV positive (Pittman, 1994). As tests become more refined to the point where there are significant changes in the diagnostic interpretation of patients already tested or, where new tests become available that could be performed on banked samples for which originally no tests were available, does the duty to look-back 'activate'? What will be its limits?

### **Privacy and confidentiality**

Genetic information is personal but also necessarily familial (and as we shall see later, socio-economic, as concerns insurers and employers). The first time that the familial nature is likely to arise is long before a test is even available, that is, during linkage studies.

In linkage studies, each family member who may be potentially 'of interest' must first consent to be contacted by the researcher. It is the patient or family informant who should contact other informants in the family so as to complete the family medical history. It is here that the emergence of the 'right not to know' raises specific problems with regard to consent. Surely, the exercise of that right must be based on some knowledge. Yet, when does 'some knowledge' become subtle coercion? How far should family members or professionals push a person toward confronting the possibility of an 'incurable' disease when the person is ambivalent or resists that knowledge, even if early detection and treatment increase long-term survival?

Another issue is that of family members possessing genetic information but who refuse to communicate such information. Is the duty to warn, if it exists, that of the physician or the family? Is it a legal or only a moral duty? As early as 1983, the US Presidential Commission recommended that, in the situation where the patient/research participant refuses to inform other family members of their at-risk status, the following four

conditions should be met before refusal is overridden (President's Commission, 1983):

- (1) All efforts to persuade the individual to disclose information voluntarily have failed.
- (2) There is a high probability of harm to the relatives (including future children) if the information is not disclosed, and there is evidence that the information would be used to prevent harm.
- (3) The harm averted would be serious.
- (4) Only genetic information directly relevant to the relative's own medical status would be revealed.

More recently, the moral nature of this obligation has been underscored (Baumiller et al., 1996; ASHG, 1998). It is interesting to note however that the Quebec Code of Ethics includes the possibility for notification by the physician in spite of the obligation of confidentiality 'if there should be a just and imperative motive related to the health of the patient or the welfare of others' (Article 3.04, Code of Ethics, 1981). European texts have similar provisions (Knoppers, 1995) and the recent opinion of the French National Ethics Committee acknowledges that there may be a duty to rescue (Comité Consultatif, 1996).

Even in the absence of a legal duty, a physician may have the privilege to warn family members that could serve as a defence (Dickens and Park, 1996). Moreover, since genetic information about a patient has potential to benefit that entire patient's family, the physician may question why that patient should have a right to prevent disclosure of the information (Knoppers, 1996). Or, the physician may see the patient's genetic profile as 'family property' and if the information is treated as such, that physician may be in conflict between duties to the family and to the patient (Gevers, 1988). To date, no court has held that there is a legal duty on physicians to warn relatives of patients that they may be at risk of a genetic disorder (Dickens and Park, 1996). The patient with a genetic susceptibility is not putting relatives at risk by carrying the gene (in comparison with the disclosure of HIV infection where it is the patient who harms others by his or her actions) (Dickens and Park, 1996). One circumstance in which a breach of confidentiality could be considered is when health care providers screening for genetic conditions inform their patients in advance of that eventuality. This would permit patients to refuse testing or to seek medical advice and services elsewhere (Macklin 1992).

Generally, in spite of legislative and regulatory mechanisms as well as professional obligations, the confidentiality of a patient's medical record is never absolute. Statutes may create duties to disclose confidential medical information based upon the rationale that the public good or interest, specifically avoiding doing harm to others, sometimes justifies breaching patient's privacy (Knoppers, 1996). For example, a physician may be obliged to report, for purposes of public safety or public health, medical conditions that impair capacity, contagious diseases or psychiatric illness.

### **Vulnerable populations**

Certain participants in genetic testing, such as incompetent adults, adolescents, and children do not have the legal capacity to consent. While the duties of competence, of due care in testing and informing and of follow-up remain, genetic testing with vulnerable populations raise specific issues due to the need to protect and to include such populations. Usually, studies or programmes using responsible adults who are adequately informed and who freely give consent create no special problems with regards to the issue of consent. It is more difficult when persons are not capable of giving consent for themselves, as is often the case with incompetent adults but this population would not in all likelihood be involved in susceptibility testing.

The genetic testing and treatment of children, however, has expanded to include testing for susceptibility, testing for the benefit of others, for research purposes, or including them in protocols for somatic cell therapy (Malkin and Knoppers, 1996; Skene and Charlesworth, 1996). The role of physicians with regard to genetic testing of children remains ambiguous as do the rights of children to be tested or not (Wertz et al., 1995). Few arguments for testing can be made in the absence of direct and immediate medical benefits to the children. Thus, testing for susceptibility raises more complex issues, and has not been accepted (Council of Europe 1990, 1996; Nuffield Council on Bioethics 1993; Sharpe 1994; ASHG/ACMG 1995). It is interesting to note that in Canada, the National Council of Bioethics and Human Research recommended in 1993 that any decisions made by the parent, with a physician, for a child concerning DNA banking, be subject to review and ratification when the child becomes capable.

Adolescents participate in the medical decision-making process to the extent that they are capable (Wertz et al., 1994). DNA testing is already offered to adolescents in the context of familial adenomatous polyposis-



coli or familial hypercholesterolemia, or from ethnic groups at risk for thalassemia or Tay-Sachs (Scriver and Fujiwara, 1992). Currently, carrier testing for cystic fibrosis is problematic. The information conveyed is of a probabilistic nature in cases where no mutation can be detected and cannot definitively identify or exclude the person. In these cases, education and counselling become essential.

Following the example of the report of the Working Party of the British Clinical Genetics Society (1994) on the genetic testing of children, the American Society of Human Genetics and the American College of Medical Genetics (ASHG/ACMG, 1995) established important points to consider before testing children and adolescents for disease susceptibilities and carrier status in regard to: (1) the impact of potential benefits and harms on decisions about testing; (2) the family's involvement in decision-making; and (3) considerations for future research. On the first aspect, medical benefit to the child should be the primary justification for genetic testing in children and adolescents, as well as substantial psychosocial benefits to the competent adolescent. If the medical or psychosocial benefits of a genetic test will not accrue until adulthood, as in the case of carrier status or adult-onset diseases, genetic testing generally should be deferred. Also, if the balance of benefits and harms is uncertain, the provider should respect the decision of competent adolescents and their families. Testing should be discouraged when the provider determines that potential harms of genetic testing in children and adolescents outweigh the potential benefits. Regarding the family's involvement in decision-making, the provider should obtain the permission of the parents and, as appropriate, the assent of the child or consent of the adolescent. The provider is obligated to advocate on behalf of the child when he or she considers a genetic test to be – or not – in the best interest of the child. In the same way, a request by a competent adolescent for the results of a genetic test should be given priority over parents' requests to conceal information. Finally, among considerations for future research, as genetic testing for children and adolescents becomes increasingly feasible, research should focus on the effectiveness of proposed preventive and therapeutic interventions and on the psychosocial impact of tests (ASHG/ACMG, 1995).

The American Society of Human Genetics and the American College of Medical Genetics also recommend that providers who receive requests for genetic testing in children and adolescents should weigh the interests of children and adolescents and those of their parents and families. The provider and the family both should consider the medical, psycho-social,

and reproductive issues that bear on providing the best care and on promoting the well-being of children and adolescents. Finally, because children and adolescents are part of a network of family relationships, as they grow through successive stages of cognitive and moral development, parents and professionals should be attentive to the child's and adolescent's increasing interest and ability to participate in decisions about their own welfare.

### **Employment and insurance**

Employment and insurance are two of the most tangible ways in which genetic information may be used (Rothstein and Knoppers, 1996). Out of fear of not obtaining employment or insurance, many individuals who are at risk of genetic disorders may forego genetic testing. As we have seen above in regard to privacy and confidentiality of genetic information, the disclosure of genetic information to employers or insurers is not foreclosed, especially considering the fact that in order to obtain insurance or employment, access to medical records is usually requested.

Workplace testing for harmful, environmental agents has long been ongoing. Today, genetic testing can be used to predict which asymptomatic workers are likely to develop late-onset disorders or multifactorial disorders. While employers have the right to select the employees qualified for the position, the problem with genetic disorders is that individuals can be identified before the onset of symptoms.<sup>4</sup> Pre-employment genetic testing should only be undertaken when it is scientifically shown to be directly job-related.

Genetic testing is being introduced into the insurance underwriting process (Masood, 1996). In 1991, a report of the American Council of Life Insurance and the Health Insurance Association of America concluded that as genetic testing becomes more available, genetic information should be as relevant and accessible as any other medical

4 In Europe, many jurisdictions have adopted prospective policy positions regarding genetic testing. The European Parliament (1990) has declared that selection on the basis of genetic predisposition must never be an alternative to cleaning up the workplace, that employees should have the right to refuse genetic testing without consequences, and there should be no storage of genetic data on workers. As for the Council of Europe (1996), it recommended that all predictive testing of genetic disease be specifically restricted to that which is performed for health purposes or for scientific research linked to health purposes only. The House of Commons Select Committee on Science and Technology in Great Britain supported these recommendations while the French National Ethics Committee asked for a specific legislative prohibition (Rothstein and Knoppers, 1996).

information. In the USA, a NIH-DOE task force on genetic information and insurance recommended that until participation in a programme of basic health services is universal, alternative means of reducing the risk of genetic discrimination should be developed (Rothstein and Knoppers, 1996). Insurers should consider a moratorium on the use of genetic tests in underwriting and should undertake educational efforts within the industry to improve the understanding of genetic information. In Canada, where health care is universally available, a study paper for the Law Reform Commission of Canada as well as the Science Council of Canada made the same recommendation – that some form of basic life insurance be universally available at the same premium, with additional insurance optional and contingent upon genetic information provided by the applicant (Knoppers, 1991; Science Council of Canada, 1992).

In Europe, the World Medical Association adopted a position against any testing by insurers and against asking specific questions about the results of genetic tests (Last World Medical Assembly, 1992). The UNESCO Declaration and the proposed European Convention on Bioethics recommend that genetic data be protected from third parties except where the law provides otherwise or where justified by general interest (Council of Europe 1996; UNESCO 1996).

### **Ownership and patents**

The failure of the November 1996 European Directive on the legal protection of biotechnology, inventions, and more specifically, on patents on living forms, had as much to do with the real world of competition in the gene hunt, as it did with public misunderstanding of DNA banking and the function of patent law (Council of Europe, 1996). Several notorious events contributed to this controversy. The first was the famous 1988 American case of Mr Moore whose 'interesting' and rare form of leukaemia led to the development of a cell line and profits for the researchers and institution involved but not for Mr Moore who was quite unaware of these mercantile developments. When he sued for a share of the profits on the basis of the fact that his body was his property, he failed. The Court reasoned that the implications for research, for organ donation and indeed for the biotechnology industry itself were enormous. The Court did say, however, that liability could be based on a failure to obtain an informed consent and to reveal commercial interests (*Moore v. Regents*, 1988). The second occurred in 1991 when a NIH researcher, C. Venter, applied for a patent on partial DNA sequences of unknown function.

While the American Patent Office rejected the claim since it did not meet the traditional requirements of patentability, it threw a chill on traditional, international collaboration and exchange between scientists. Such speculation on the actual or future worth of DNA as well as an increasing mistrust by the very human 'sources' of DNA of the hidden biotech-university or government sponsored research alliance has spawned a new debate on the ownership of DNA.

Also, there is the proprietary approach to the samples themselves, typified by the Genetic Privacy Act where sample 'sources' own their DNA. At the level of databases, this approach is paralleled by the proprietary rights attached to the sequence data held by commercial entities such as Human Genome Science (HGS). Scientists can access such data if they agree to give HGS first refusal on any commercial development they find (Anonymous, 1995).

In contrast to the HGS proprietary approach, Genethon in France and more recently, Merck, have advocated open access to sequence data (Anonymous, 1994a). This approach has its parallel in the concept of DNA as being a part of the person which is given to a DNA bank subject to certain conditions based on personal values and beliefs (Knoppers et al., 1996).

Myriad Genetics has filed a patent on the *BRCA1* gene. This patent claims the rights to the gene and to all possible mutations that can give rise to the disease. The company intends to develop a diagnostic test based on the gene - 'a high-quality and inexpensive test' (Brown and Kleiner, 1994). Some collaborators are opposed to this commercializing of DNA and consider it is too early to develop a test, because *BRCA1* is a complicated gene and many mutations in the gene trigger disease (Brown and Kleiner, 1994). Other collaborators in the *BRCA1* research disagree with the patenting approach because they 'wish to offer families under their care, a prediction service based on the techniques they have developed with their own research, and thus refuse to pay a license to a company to do it' (Anonymous, 1994a). Partly in reaction to the way that the *BRCA1* patent is being handled, research teams have decided to form a consortium to share family data and primers between themselves (Anonymous, 1994a).

In December 1995, the race to unearth the second hereditary breast and ovarian cancer gene, *BRCA2*, was concluded (Wooster et al., 1995). Scientists at Myriad Genetics, who had isolated *BRCA1* in 1994, rushed to submit a patent application for *BRCA2* coinciding with the publication of Wooster et al. (1995). Two rival patent applications have been

submitted in the UK and USA. Each group feels it has a case – the European group was the first to publish evidence that *BRCA2* has been cloned. The Myriad team points to having been the first to compile the full-length sequence of the gene. There is the possibility that the two teams will reach some form of cross-licensing agreement.

There is no doubt that the whole area of intellectual property and human genome research in general, as well as that of patents in particular require further study (Knoppers et al., 1996). The position of the research community and that of legislation as well as the international debate reflects the value placed on rewarding scientific discoveries and the individual and collective contributions to those discoveries (Beardsley, 1996).

### **Conclusion**

Susceptibility testing for inherited cancers not only raises the usual array of ethical and legal issues inherent to all genetic testing – liability, privacy and confidentiality, vulnerable populations, employment and insurance, and ownership and patenting – but also serves to highlight the increased uncertainty as to their resolution because of the probabilistic nature of the information it provides. While classical legal principles will provide some guidance, much more discussion of the issues is needed. If such cancer testing is a forerunner, the frameworks put in place will require input from the patients and families, not just the scientific or legal experts. Traditional ethical principles too, while certainly applicable, should be revisited.

It goes without saying that genetic testing and counselling should embrace the four ethical principles of autonomy, beneficence, non-maleficence, and justice. But to these standard principles could be added those particular to communication within relationships. In the context of human genetics, we have recommended three new ethical principles: (1) the principle of reciprocity or exchange of knowledge and provision of choices – this principle recognizes an inequality between the knowledge held by individuals and that held by practitioners of medical genetics. Justice requires that such knowledge and thus power, be redistributed in a way that is beneficial to the individual; (2) the principle of mutuality or civic responsibility – genetic disease implicates not only the individual but also the family and future generations. This fact imposes a duty on the individual to help family members in the communication of genetic information and understanding of genetic disease; and (3) the principle of solidarity – the State in return for the free and willing participation of its

citizens in research and testing should put in place legal and other regulatory mechanisms to protect them from untoward socio-economic discrimination. These three principles may constitute a solid basis for shared responsibility and for patient participation with a view to establishing genetic justice based on genetic responsibility (Knoppers, 1991).

The message emerging is 'that much more work needs to be done, both at the research and development level and in terms of basic research, before genetic testing for susceptibility to common diseases is accepted as a valid service' (Harper, 1995). Certainly, the same can be said for ethical and legal issues.

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