Recommendation Rec(2006)4 of the Committee of Ministers to member states on research on biological materials of human origin

Explanatory memorandum

This explanatory memorandum to the recommendation on research on biological materials of human origin was drawn up under the responsibility of the Secretary General of the Council of Europe. It takes into account the discussions held in the Steering Committee on Bioethics (CDBI), and it also takes into account the remarks and proposals made by Delegations. The explanatory memorandum is not an authoritative interpretation of the recommendation. Nevertheless it covers the main issues of the preparatory work and provides information to clarify the object and purpose of the recommendation and to better understand the scope of its provisions.

Introduction

1. Biomedical research can be performed not only with human subjects, but also with biological materials of human origin. The Additional Protocol to the Convention on Human Rights and Biomedicine concerning biomedical research only covers biomedical research on human subjects. Biomedical research with biological material of human origin is also very useful and important for advances in medicine. However, no international regulation exists to cover this research. This recommendation seeks to introduce rules for research with biological materials of human origin. Worries about the access to and the protection of data, and scandals raised by the use of biological materials of human origin without the knowledge of the subjects of the research, have increased the need for international regulation. The primary goal of this recommendation is to protect the rights and fundamental freedoms of those whose biological materials could be included in a research project. Furthermore, regulating biomedical research with biological materials of human origin is necessary to instil confidence in the medical profession - the basis of the patient-physician relationship – and in research procedures. The recommendation supports the idea that it is good practice to inform and request consent from patients and the other persons concerned when their biological materials are used for research purposes.

2. This recommendation builds on the principles embodied in the Convention for the Protection of Human Rights and Dignity of the Human Beings with regard to the Applications of Biology and Medicine (ETS No. 164, 1997, Convention on Human Rights and Biomedicine) and in its Additional Protocol concerning biomedical research (CETS No. 195, 2005) with a view to protecting human rights and dignity in relation to research on biological materials of human origin. Biomedical research may involve interventions on individuals, use of biological materials of human origin (like organs, tissues, cells) and use of personal data. Interventions to remove biological materials for specific research projects and other interventions on human beings for specific biomedical research projects are within the scope of the Additional Protocol concerning biomedical research. Data collected for these research projects and data resulting from this research are also within the scope of this Additional Protocol. Therefore, this recommendation excludes research involving such interventions for a specific research project coming under the scope of the Protocol concerning biomedical research. The study of biological materials that have been stored after originally being collected in a diagnostic or therapeutic setting, during research projects with human subjects or during autopsy, has long been an integral part of biomedical research. When using biological materials of human origin for biomedical research, researchers often also need personal data (for example data taken from a medical record or from a health-related registry like a cancer-registry) to perform their research. At the same time they create new data by performing medical research and by analyzing the biological materials of human origin.

3. The benefits for human health of the acquisition of knowledge from this research on biological materials utilising systematic methodologies in the sphere of biomedicine are widely acknowledged. Biomedical research utilising stored biological materials of human origin is a powerful tool to improve human health and healthcare systems. If these materials were not utilised and research had to be undertaken relying only on prospective collection of biological materials specifically for each project, it would mean in many cases comparable research results would not be available for much more years. The primary intention

of research undertaken on biological materials of human origin is to advance knowledge so that patients in general may benefit. An individual who is the source of biological material used for research thus may not benefit directly from this research. A set of international rules and guidelines regulates medical research involving interventions on human beings. These international rules try to minimise differences between national levels of protection of the rights and freedoms of individuals. Biomedical research involving interventions on human beings is addressed by the European Convention on Human Rights and Biomedicine, by the Additional Protocol to this Convention concerning biomedical research and by the Directive of the European Parliament and of the Council on good clinical practice in the conduct of clinical trials on medicinal products. In the field of general data protection international regulation also exists (for example the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal Data, (1981, ETS No. 108) and the Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data on the free movement of such data). However, legislative action in the field of research with biological materials of human origin is still in its infancy both on a national and on an international level. Although the revised Declaration of Helsinki (World Medical Association) states that biomedical research involving human subjects includes research on identifiable human material or identifiable data, specific provisions on the principles of the Declaration that should apply in practice to the research use of biological material of human origin and personal data are not included. There is a need for a common international framework, especially in view of increasing cross border flow of biological materials of human origin and data and in the light of important third party interests (e.g. the pharmaceutical and biotechnology industries).

4. The purpose of this recommendation is to set out and safeguard fundamental rights of individuals whose biological materials are used in biomedical research, while recognizing the importance of freedom of research. Their integrity and private life must be guaranteed, while at the same time the continued benefits of research should be ensured by providing researchers with access to biological materials of human origin, with the necessary and appropriate protections. Enhancing public trust in research is another important goal that facilitates the accomplishment of important social goals through research.

5. Stored biological materials of human origin have often been used in ways that were not originally foreseen either by those who were the sources of the materials or by those who collected them. In many cases, no information on this further use of biological materials of human origin was given at the time of its collection and no consent was requested. This raises questions concerning the right to respect for private life, which is guaranteed by article 8 of the European Convention on Human Rights and by article 10 of the Convention on Human Rights and Biomedicine. Progress made in genetics has increased the risks of intrusion into private life. Analysing biological materials of human origin gives rise to much information on the individual. In particular, research with stored biological materials of human origin which have not been rendered irreversibly anonymous may result in health information that is relevant for the "source" of the materials and often for his/her relatives too. Genetic analysis of biological materials of human origin indeed makes it possible to also gather information about relatives of the source and/or about the possible future health status of the source. These risks for the private life of individuals are even greater because of the development of information technology, which has made the processing of personal data and the exchange of data much easier. Scientific cooperation in the field of biomedicine is greatly benefiting from this progress, but the risk to the integrity and private life of individuals must be addressed by scientists, physicians and policymakers. Concern has also been expressed on possible consequences of this evolution on the autonomy one has over one's own body and over the biological material once it has been removed from the body.

6. Not only are individuals concerned by these new advances in biomedicine, but groups also run the risk of intrusion into their private lives. Even when biological materials of human origin are anonymised, research can lead to discrimination or stigmatisation of certain groups based on the research results. Research on biological materials of human origin may lead to results that, for example, show that genetic mutations linked to a certain disease occur more frequently in certain populations than in others. This possibility raises the fear of potential discrimination of individuals belonging to that population, even without their participation in the specific research project. However, it is also true that group interests are affected in non-genetic research. For example, population-based research projects that demonstrate that a certain group has a higher incidence of infectious diseases than other groups could lead to stigmatisation of that group.

Drafting of the recommendation

7. The drafting of this recommendation was initiated at the CDBI plenary held from 4 December until 7 December 2000 in Strasbourg. Some delegations had remarked that there was an urgent need for guidance on research on biological materials and personal data.

8. The CDBI decided to divide the Protocol concerning biomedical research into a Protocol concerning biomedical research restricted to research involving interventions on human beings for specific research projects and into a report on biomedical research utilising personal data and biological materials.

9. The CDBI agreed to name Dr. Imogen EVANS (United Kingdom) and Prof. Henriette ROSCAM ABBING (Netherlands) as the rapporteurs for the preparation of a report on research on biological materials and personal data and asked delegations to nominate possible consultants. An interim report on biomedical research utilising archived biological materials and personal data was presented to the CDBI in June 2001 and a final report to the CDBI in November 2001. These documents were prepared by the two rapporteurs in cooperation with three consultants. In order to carry out their functions, the rapporteurs built on the work done by the Working Party on Biomedical Research (CDBI-CO-GT2) and sought its advice. They consulted with the 3 consultants in relation to their fields of expertise. The final report included a set of draft guidelines for such research that served as the basis for this recommendation. This text has been drafted taking into account the discussions during the CDBI Plenary meeting in June 2001, under the chairmanship of Dr Elaine GADD (United Kingdom), when the report on biological materials and personal data in biomedical research was first presented and during the plenaries of October 2004 and April 2005, chaired by Mrs Dubravka SIMONOVIC (Croatia), and of October 2005 under the chairmanship of Professor Elmar DOPPELFELD (Germany), which discussed the draft recommendation. The comments and suggestions, which were made by delegates on the report and the draft recommendation, contributed to the drafting of the final text and to this explanatory memorandum.

Comments on the provisions of the recommendation

Title

10. The title identifies this recommendation as the "Recommendation on research on biological materials of human origin."

11. The term "research" is used in order to be consistent with the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine (the Convention on Human Rights and Biomedicine) and its Additional Protocol concerning biomedical research, and in order to stress that this recommendation covers all areas of research utilising residual biological materials of human origin in the field of biomedicine, as well as interventions to remove biological materials to be stored for research purposes.

12. The expression “of human origin” is consistent with the wording used in the Additional Protocol to the Convention on Human Rights and Biomedicine concerning transplantation of organs and tissues of human origin.

Preamble

13. The preamble recalls the principles on which the provisions of this recommendation are based. In regard to paragraph 7 of this preamble, it should be noted that individual analyses within a single research project may be performed in many countries concurrently.

Guidelines

CHAPTER I
Object, scope and definitions

Article 1 – Object

14. Article 1 states that member states should protect the dignity and identity of all human beings and guarantee everyone, without discrimination, respect for their integrity and right to private life and other rights and fundamental freedoms with regard to any research governed by this recommendation. Research on

biological materials of human origin and personal data should not be carried out in a manner, which owing to its aim, nature or implementation, would infringe human dignity. This article takes over the terms of article 1 of the Convention on Human Rights and Biomedicine and its Additional Protocol concerning biomedical research, which state the obligation to protect the dignity and identity of all human beings, and to guarantee everyone respect for their integrity, their private life and other rights and fundamental freedoms.

Article 2 – Scope

15. The scope of this recommendation is twofold. It states that this recommendation applies to the full range of research activities in the health field that involve the removal of biological materials of human origin to be stored for research use; it also applies to the full range of research activities that involve the use of biological materials of human origin that were removed for a purpose other than that mentioned in paragraph 1, this includes material removed for a previous research project.

16. The scope of the recommendation covers interventions to obtain biological materials to be stored for future research (and that further research use) and the research use of residual biological materials originally removed for clinical or forensic purposes or for a previous specific research project. Interventions to remove biological materials for specific research projects and other interventions on human beings for specific biomedical research projects are within the scope of the Additional Protocol concerning biomedical research. Therefore, this recommendation does not apply to research involving such interventions for a specific research activity coming under the scope of the Protocol concerning biomedical research. “Research activities” includes the continuum of research from the recruitment of donors of biological materials or other methods of obtaining biological materials for research purposes, storage of biological materials for research, the research projects themselves, to the publication of the research results. “Research” means research on biological materials of human origin for health purposes or for scientific research linked to health purposes. This recommendation covers research into molecular, cellular and other mechanisms in health and which are involved in disorders and disease; and diagnostic, therapeutic, preventive and epidemiological studies on biological materials. This list is not meant to be exhaustive.

17. Where research on biological materials of human origin also entails the use of personal data, the provisions of the recommendation will also apply to those data.

18. The recommendation applies both to the research use of collections of biological materials of human origin and associated personal data that were created before and after the entry into force of this recommendation.

19. This recommendation does not apply to embryonic or foetal biological materials because of the specificity of the ethical questions raised, in particular the removal of these materials. It can be recalled that the Convention on Human Rights and Biomedicine prohibits the creation of human embryos for research purposes in its article 18.

Article 3 – Identifiability of biological materials

20. This article classifies biological materials in two categories: identifiable biological materials and non-identifiable biological materials. It specifies that “identifiable biological materials” refers to those materials that alone or in combination with associated data, which are or not personal data, allow the identification of the persons concerned either directly or through the use of a code. In the latter case, they are referred to as “coded” materials, when the user has access to the code, and as “linked anonymised” materials when the user does not have access to the code, which is under the control of a third party, for example those responsible for the clinical care of the person concerned. It is useful to recall the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal Data (1981, ETS No. 108) and Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, which state that personal data means any "information relating to an identified or identifiable individual".

21. According to the definition in Directive 95/46/EC, an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity. An individual shall not be regarded as "identifiable" if identification requires an unreasonable amount of time or manpower.

22. The article also addressed non identifiable biological materials, also referred to as “unlinked anonymised” biological materials. This expression refers to biological materials that, alone or in combination with associated data do not allow, with reasonable efforts, the identification of persons concerned. Unlinked anonymised biological materials and data would be materials and data that contain no information that could reasonably be used by anyone to identify individuals to whom they relate. All identifiers would have been removed from this type of biological materials of human origin and data. It should be noted that while unlinked anonymised biological materials and data may not allow for the identification of a specific individual, they may allow the identification of a group of individuals.

23. The following expressions are not defined in this article but nevertheless it is considered that:

- “biological materials”, as the scope of this recommendation is limited to the research field, does not cover therapeutic products, other derived products, medical devices or pharmaceuticals;
- “person concerned” refers to the person, including a deceased person, whose biological materials are removed, stored or used. It is generally agreed that an ethical and moral responsibility pertains to the use of information about a dead person, especially since such information might intrude on the privacy of their relatives. It is part of the professional obligations to maintain confidentiality if the wishes of the deceased are unknown. Only in the case of an overriding interest of a third party, might the duty of confidentiality be overridden. The scope of this recommendation therefore includes biological materials from people who have died;
- "competent body" refers to any body, which, in accordance with national law, has the authority to approve a research project. It is acknowledged that in some countries, the ethics committee or a data protection committee could also act as the competent body while in other cases or in other countries, the competent body might be a ministry or a regulatory agency, which would take the opinion of the ethics committee into account. The recommendation does not set out a specific procedure or sequence for the submission of research projects to the relevant bodies.
- “ethics committee” is used in this recommendation to signify any body that, in accordance with national law, has the authority to give an opinion on the ethical acceptability of research projects. Article 16 of the Convention on Human Rights and Biomedicine sets out the condition that a research project be approved by the competent body after independent examination of its scientific merit, including assessment of the importance of the aim of the research, and multidisciplinary review of its ethical acceptability. Article 9 of the Additional Protocol concerning biomedical research sets out the requirements for such approval and expands on them. The explanatory report of the Protocol states that due to the differing systems in use in various states, article 9 refers to “ethics committees”. It is considered that this term covers ethics committees or other bodies authorised to review biomedical research project. In many states this would refer to a multidisciplinary ethics committee but review by a scientific committee might also be required.

CHAPTER II
General provisions

Article 4 - Practice guidelines

24. This article sets out the recommendation that member states should promote the establishment of practice guidelines to ensure compliance with the provisions of this recommendation.

25. These practice guidelines will complement and give substance to the general principles set out in this recommendation. This would allow for flexibility in a variety of situations and for timely adaptation in the light of changing circumstances. Member states may choose the legal form of the national provisions they develop in order to ensure compliance with the recommendation.

26. Adaptation of the recommendation itself could take place over time once elements in the area under discussion are further developed. Article 26 of this recommendation foresees re-examination of the recommendation not more than five years after its adoption.

27. Guidelines may be useful to allow for flexibility in a general recommendation on a subject in a fast moving field, with applications in biotechnology (and in particular genetics). Guidelines are more easily adapted to changing circumstances. This allows in due course for in depth reflection on the appropriateness of more detailed provisions in the recommendation (such as on arrangements for coding or anonymisation, or on commercial use of biological materials of human origin).

28. Guidelines should be set in member states and, where appropriate, through the Council of Europe or another (European) institution.

Article 5 – Risks and benefits

29. This article states two conditions which are cumulative:

- the risks for the persons concerned, and where appropriate, for their family should not be disproportionate to the potential benefit of the research activities; and
- those risks should be minimised so as to avoid imposing risks which are not necessary for the use considered.

30. Progress in medical science and developments in information technology have given rise to new questions regarding the rights of the individual whose biological materials are used in research, in particular the right to respect of private life. Misinterpretation of information, psychological distress, stigmatisation and use of unvalidated research findings are among those risks.

31. In certain cases, risks could also appear for the group to which the person belongs, such as risk of stigmatisation and discrimination. They should also be taken into consideration.

32. This article reaffirms the principle of the right to respect for private life introduced in article 8 of the European Convention on Human Rights and reiterated in the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data, the Convention on Human Rights and Biomedicine, and its Additional Protocol concerning biomedical research.

Article 6 - Non-discrimination

33. Article 6 states that appropriate measures should be taken to ensure that research does not lead to discrimination against, or stigmatisation of, a person, family or group. Research on stored biological materials of human origin may not carry great risks for individual research subjects if sufficient anonymisation has been carried out. However, risks may exist for groups that could be linked to the individual research subjects. To the degree that potential risks can be foreseen, researchers should prepare their protocol in such a manner as to minimise the foreseeable risks. When appropriate, the researchers should consult with the potentially affected groups in regard to the design of the research and its foreseen publication. In the preparation of its opinion on an individual research project, the ethics committee should alert researchers to such potential problems. If the ethics committee is not satisfied that such issues have been sufficiently addressed by the researchers, the research should not be undertaken. Member states should also consider the problems posed by the improper use of research results outside the field of biomedical research. The confidentiality with regard to the persons concerned should be respected, in particular in relation to employment and insurance.

34. Whereas the term "discrimination" has usually a negative connotation in French, this is not necessarily the case in English (where one must use the expression "unfair discrimination"); it has, however, been decided to keep the same term in both languages, as it is in the European Convention of Human Rights, in the case law of the Court and in the Convention on Human Rights and Biomedicine. Discrimination here must, therefore, in French as in English, be understood as unfair discrimination.

Article 7 - Prohibition of financial gain

35. The principle that biological materials should not, as such, give rise to financial gain is set out in this article. This provision should not prevent payments for legitimate scientific or technical services rendered in connection with the use of such biological materials. In most cases, biotechnological products are developed from pooled samples and the contribution of any individual's sample is uncertain and unquantifiable.

36. However, this restriction would be applicable, for example, to the situation where someone holding rare biological materials intends to sell them, as such, for financial gain.

Article 8 - Justification of identifiability

37. It is stated in article 8 Paragraph 1 that biological materials and associated data should be anonymised as far as appropriate to the research activities concerned. It follows indeed from the principles

of necessity and proportionality that, whenever possible, biological material of human origin and data used for scientific purposes are anonymised (linked or unlinked) or at least that they only include identifiers which are necessary. Therefore, identifiable materials and data should not be utilised if there are less intrusive means to reach similar results. However, in certain cases unlinked anonymisation may be incompatible with the scientific requirements of the research project or be contrary to the interests of the persons concerned. In evaluating whether such anonymisation is appropriate, it should be considered whether the scientific quality of a project could be compromised by resorting to the use of unlinked anonymised biological materials. Furthermore, it should be asked whether information of relevance to the current or future health or quality of life of persons concerned might be obtained during the research project. If that would be the case, it may not be appropriate to anonymise the biological materials in an unlinked form, as it would prevent any possibility of giving health-related feedback resulting from the research to persons concerned.

38. Where there are identifiers, it is necessary to have a well-developed framework of protection to ensure that the risks to sources of biological materials of human origin and data are minimised. Member states are responsible for ensuring that such a framework exists.

39. Paragraph 2 provides that, when the use of biological materials and data in a form that would not be unlinked anonymised is foreseen, ethics committees should ask researchers to justify this choice.

Article 9 - Wider protection

40. This article is inspired by article 27 of the Convention on Human Rights and Biomedicine and article 34 of its Additional Protocol concerning biomedical research.

CHAPTER III
Obtaining biological materials for research

Article 10 – Obtaining biological materials for research

41. It is stated in paragraph 1 of this article that biological materials should be obtained for research in accordance with the provisions of this chapter (III). “Obtention” refers to removal of biological materials and all other methods of obtaining them.

42. Paragraph 2 of this article enunciates the rule that information and consent or authorisation to obtain such materials should be as specific as possible with regard to any foreseen research uses and the choices available in that respect. The purpose of the storage should be specified. Where samples are to be stored for unspecified future research use, information to this effect should be provided prior to consent or authorisation. At the time where consent is sought from persons whose biological materials and personal data will be used in research, possibilities of a help in appropriate forms should be offered to those persons to enable them to understand clearly the nature of the decisions asked from them. Informed consent forms should specify the options available to them. These options should include the possibility of refusing use of their biological materials and personal data in any research project, the possibility of consenting only to unlinked anonymised use of their biological materials and data, the possibility of consenting only to specific research and the possibility of being contacted or not being contacted before engaging in further research.

Article 11 – Interventions on a person

43. Article 11 states that an intervention should only be carried out to obtain biological materials for storage for research purposes if it would comply with the Additional Protocol concerning biomedical research. The two types of interventions (those addressed by the Protocol and those addressed by this recommendation) are both relevant to the research field. However, in the case of the Protocol, the intervention aims at removing materials for use in a specific research project, whereas in the case of this recommendation, the material is removed for research storage.

44. Provisions particularly relevant to such an intervention would be those found in Chapters II, III, IV, V, VI and VIII of the Additional Protocol concerning biomedical research.

Article 12 – Residual biological materials

45. In Paragraph 1 of this article, it is written that biological materials removed for purposes other than storage for research should not be made available for research activities without appropriate consent or

authorisation, or in accordance with the provisions of article 22 paragraph 1.ii. The appropriate type of consent required may depend on the degree of anonymisation, if any, foreseen for the biological materials. It should be noted in this context that once biological materials have been "unlinked anonymised", the sources of those materials can no longer be contacted for any type of consent for further uses of said materials.

46. Paragraph 2 states that whenever possible, information should be given and consent or authorisation requested before biological materials are removed. An example of how such a procedure could be carried out is by informing hospital patients during their registration that their residual biological materials could be used in research and requesting consent or authorisation at that time. Sufficient information should be provided in order to allow "opting out" from some types of research if such possibilities are known at the time of the provision of information. This avoids having to recontact the research subject later on to request consent. The source of the biological materials should be able to consent or withhold consent for storage of the materials with a view to research, to consent or not to the use of materials in a certain type of research, or to indicate what types of research the materials should not be used for. In some circumstances however, it would be a questionable practice to seek consent for future research uses of biological materials before their removal. For example, in emergency medical procedures, or when patients are in physical and psychological distress, or have other serious medical decisions to make, it is inconsiderate and possibly harmful to engage them in discussions about future research projects with biological materials that are being collected for a clinical purpose. In these circumstances, it would not be objectionable to store the residual materials and seek consent at a later time but prior to any actual research use.

47. Where documented informed consent has been obtained, the existing documents may indicate whether the sources wished their materials/data to be included in future research and may indicate type(s) of research that they would view positively or negatively. It is recommended that consent forms be developed to provide potential sources with information and options to help them understand clearly the nature of the decision they are about to make. Consent to future research use of biological material of human origin and personal data should be requested separately from that for the clinical or research intervention.

48. When biological materials of human origin and personal data are collected it is best practice to ask the sources for their consent to future use, even in cases where the specifics of the future research projects are unknown. If future research use of biological materials of human origin and personal data cannot be specifically anticipated, the consent should not be framed too broadly in order to prevent unconditional, "blanket" consent. The request for consent should be as explicit as possible in regard to the future research uses of the biological material of human origin and personal data.

Article 13 – Biological materials removed after death

49. In accordance with this article, biological materials should not be removed from the body of a deceased person for research activities without appropriate consent or authorisation and that materials should not be removed or supplied for research activities if the deceased person is known to have objected to it. Respectful treatment of the deceased dictates that a person's wishes regarding the disposal of their remains should be honoured. Logically, this would mean that persons who objected to the use of their tissues for research while alive should not be dishonoured by the disregard of their views after they have died. The difficulty lies in cases where no one is sure what the deceased actually thought about research. A reasonable approach might be for researchers, in the context of asking for consent to use tissue samples, to ask the person authorised to consent if they have knowledge that the person objected to research.

CHAPTER IV
Collections of biological materials

Article 14 – Principles applicable to all collections of biological materials

50. This article sets out the principles applicable to any collection and above all the designation of the person and/or institution responsible for the collection. Under the principles of transparency and accountability, this article emphasises the need to set conditions governing access to and use of biological materials. Furthermore, the policy regarding the disclosure of information related to biological materials should be stated.

51. Furthermore, paragraph 3 states that each sample should be appropriately documented including information on any relevant consent or authorisation, the forms of which should be retained. For unlinked anonymised samples, relevant information should include the wishes of the source in regard to research

uses of his or her biological materials but should exclude any element which could make it possible to link the material with this person.

Article 15 – Right to change the scope of, or to withdraw, consent or authorisation

52. This article states that a person should retain the right to withdraw or alter the scope of his or her consent without being submitted to any form of discrimination in particular with regard to his or her right to medical care. When the person has withdrawn his or her consent, the article states that he or she should have the right to have biological materials destroyed or rendered unlinked anonymous. In this respect, it should be noted that, in certain cases, the destruction of the biological materials could affect the value of the aggregate of stored materials, for example in the case of small collections containing rare biological materials. Certain flexibility is therefore left for national systems to choose between one possibility or the other.

53. Article 26 of the Convention on Human Rights and Biomedicine can be recalled in the context of this article. It should be noted that, in a similar manner, no restrictions should be placed on the exercise of the rights and protective provisions contained in this recommendation other than such as are prescribed by law and are necessary in a democratic society in the interest of public safety, for the protection of public health, or for the protection of the rights and freedoms of others.

Article 16 – Transborder flows

54. This article states that biological material of human origin and associated personal data may be transferred to a third country only if that third country ensures an adequate level of protection. Of course, all other relevant provisions of this recommendation related to the research activities with biological materials such as consent and authorisation, also apply to transfer of biological materials for research purposes.

55. It is noted that Directive 95/46/EC of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and on the free movement of such data requires that EU member states provide for the transfer of personal data which are undergoing processing or are intended for processing after transfer to a third country only if the third country in question ensures an adequate level of protection.

56. The adequacy of the level of protection afforded by a state should be assessed in light of all the circumstances surrounding a transfer operation of biological materials and associated personal data or set of such transfer operations; particular consideration should be given to the nature of the biological materials and associated personal data, the purpose and duration of the proposed research, the state of origin and state of final destination, the rules of law, both general and sectoral, in force in the receiving state in question and the professional rules and security measures which are complied with in that state.

57. Member states should inform each other of cases where they consider that a state does not ensure an adequate level of protection within the meaning of this article. Member states may consider allowing the transfer of biological materials and associated personal data to a state that does not ensure an adequate level of protection within the meaning of this article if appropriate safeguards are present with respect to the protection of the privacy and fundamental rights and freedoms of individuals and as regards the exercise of the corresponding rights; such safeguards may in particular result from appropriate contractual clauses.

58. Best practice would also be to evaluate if samples imported into a Council of Europe member state had been collected in accordance with the principles of the recommendation. In any case, once biological materials are within a Council of Europe member state they should be treated with the same level of protection as biological materials collected in that member state.

CHAPTER V
Population biobanks

Article 17 – Scope of chapter V

59. This article sets out the characteristics of a “population biobank”. Collections of biological materials meeting this description would be subject to the provisions of this chapter, as well as to those of chapter IV, which apply to any collection of biological materials.

60. “Population”, in this recommendation, refers to the body of inhabitants of a given place. For a collection to have a “population basis” (and therefore be a “population biobank”), it must contain information about a representative part of the population. The term “supplies” in this article refers to allowing access to researchers from outside the collection or biobank in question.

Article 18 - Independent examination

61. This article states that every proposal to establish or to convert a collection - i.e. to modify the aim for which the biological materials of a collection are stored- to a population biobank should be subject to an independent examination of its compliance with the requirements of this recommendation. Member states may wish to consider such an examination to be a non-binding opinion taken into account by other authorities or they could formalise it as resulting in the decision of a competent body.

Article 19 – Oversight of population biobanks

62. This article provides in particular that each population biobank be subject to independent oversight. The objective of this oversight is in particular to safeguard the interests and rights of the persons concerned in the context of the activities of the biobank.

63. Concerning paragraph 2, it should be noted that population biobanks should establish policies and procedures to determine whether a proposed research project is an appropriate use of the materials, in particular when the latter are rare or scarce.

64. In regard to paragraph 4 of this article, the term “publish” refers to any appropriate means to make public; for instance, by publishing on the internet or by the preparation of a specific brochure or notices.

Article 20 – Access to population biobanks

65. This article underlines the importance of the access by researchers to biological materials stored in population biobanks and recommends to member states to take appropriate measures to facilitate that access.

66. Such access should be subject to the conditions included in this recommendation, and in particular to the conditions for the use of biological materials and associated personal data, including possible restrictions placed in that respect by the person concerned.

67. Access by researchers to materials may also be subject to other “appropriate conditions”. Those are in particular the conditions set in the framework of its functioning rules by the biobank itself (see paragraph 63 above), those related to the research project considered, or conditions for the re-use by the researcher.

CHAPTER VI
Use of biological materials in research projects

Article 21- General rule

68. This article sets out the general rule that research on biological materials should only be undertaken if it is within the scope of the consent given by the person concerned.

Article 22 – Identifiable biological materials

69. When consent has not been obtained before the research project is envisaged, reasonable efforts should be made to recontact the person whose biological materials and personal data could be used. It is not always foreseeable that biological materials of human origin and personal data will be used for later research and consent of the person concerned might not have been asked for further research use at the time of the collection. In that case, reasonable efforts should be made, both in terms of means and time, to recontact the source, in order to request consent. The person concerned’s objection to being recontacted, however, should be respected.

70. If recontacting the individual in person is not possible, alternative methods of provision of information should be utilised. They include public advertisements or the use of internet (announcements of new

projects). They should be designed in such a manner that the person is given the possibility to opt out of any proposed project in particular because of its purpose or the form under which it is envisaged to use the material. If recontacting the person is eventually not possible despite reasonable efforts, both in means and time, biological materials may only be used in a research project subject to independent evaluation of the fulfilment of the three conditions in Paragraph 1.ii. The first condition is that the research considered addresses an important scientific interest; this is understood in the respect of the proportionality principle between the rights of the person concerned and the expected scientific benefits. The second condition is that the aim of the research could not reasonably be achieved with biological materials for which consent can be obtained. Finally, there is no evidence that the person concerned has expressly opposed such research use. These provisions set the main conditions for the use of biological materials in the situation mentioned. However, they leave to member states the choice of their mode of implementation taking into account thereby the different systems that may exist at national level.

71. The individual has the right to withdraw from the research and the right to destruction of his/her biological materials and data. In the case where a person withdraws and the research has already generated findings, these findings ought to be rendered unlinked anonymised, unless they already have been published or it is otherwise impossible to withdraw them from the research. The degree of identifiability of the biological material of human origin and personal data, the nature of the research, the need for feedback, and the risk for group privacy should therefore be taken into account.

72. Arrangements should be in place for appropriate information and authorisation procedures where the person is not able to consent to research, including post mortem use of his/her biological materials for research. Appropriate information and authorisation procedures for participation in research involving interventions on human beings are enumerated in the Additional Protocol concerning biomedical research. It should be kept in mind that biological materials may be stored for long periods and the situation of the source may evolve over the years, his or her capacity to consent being potentially affected, for example, due to a deterioration of his or her mental health.

Article 23 – Unlinked anonymised biological materials

73. The article specifies that unlinked anonymised biological materials may be used provided that such use does not violate any restrictions placed by the person concerned prior to this anonymisation.

74. The procedure followed for the anonymisation of the materials should however be submitted to an appropriate evaluation procedure; this evaluation remaining valid for any further use of the materials so anonymised.

Article 24 – Independent review

75. This article sets out the requirement that research should only be undertaken if the research project has been subject to an independent examination of its scientific merit and ethical acceptability. Taking into account different systems which may exist at national level, it specifies that the law may in addition, require approval by a competent body. This article might be further developed through practice guidelines.

76. These provisions are not intended to curtail the freedom of research. In that respect, it should be noted that article 15 of the Convention on Human Rights and Biomedicine states that biomedical research shall be carried out freely. However, this freedom is not absolute. It is qualified by the legal provisions ensuring the protection of the human being. One of these protective provisions is the independent examination of the ethical acceptability of a research project by an ethics committee. This is an essential element for the protection of fundamental rights.

77. In the framework of the review procedure, the respect for private life of recognisable groups or individuals should also be considered in order to minimise the risks of group discrimination or stigmatisation.

78. Further, the article states that arrangements should be in place to allow review procedures to be adapted to the particular nature of the research and the identifiability of the biological material of human origin and data. Flexibility in review procedures is important in order to adapt evaluation to specific situations that might exist. The evaluation of genetic research, for example, might require a different approach than other types of research. The nature of the biological materials of human origin involved (for example if especially sensitive materials are concerned), can also influence the evaluation.

79. The unlinked anonymisation of biological materials of human origin and associated data should be reviewed, in particular by the competent body. Where necessary, specific guidelines in this area could be elaborated.

Article 25 – Confidentiality and right to information

80. This article states that the principles of chapter VIII (Confidentiality and right to information) of the Additional Protocol concerning biomedical research should be applied to any research project using biological materials of human origin and associated personal data. Thus this article reaffirms the principle of the right to respect for private life introduced in article 8 of the European Convention on Human Rights and reiterated in the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data, the Convention on Human Rights and Biomedicine, and its Additional Protocol concerning biomedical research. Everyone is entitled to know any information collected about his or her health. This right is of fundamental importance in itself but also conditions the effective exercise of other rights such as the right to consent. It refers to unexpected findings in the course of the research using biological materials of human origin and personal data which are relevant for the health of the source (and his/her relatives). It is customary to address this issue before the start of the research, when consent is requested.

81. The right to know goes hand in hand with the "right not to know". Individuals may have their own reasons for not wishing to know about certain aspects of their health. A wish of this kind should be observed. The person's exercise of the right not to know this or that information concerning his or her health is not regarded as an impediment to the validity of his or her consent.

82. Research results should not be published in a form which enables the individual to be identified, without his or her consent. The publication of research results that allow sources to be identified may pose a risk to their private life. Researchers who plan to publish or disseminate research results should foresee a framework for the protection of the private life of the persons concerned.

83. Information collected on the health of a source should be made accessible to them. Communication of overall research results could be by way of general information such as a newsletter; it should not necessarily consist of a personal communication with each person concerned, which would often be impracticable.

CHAPTER VII
Re-examination of the recommendation

Article 26 – Re-examination of the recommendation

84. Article 26 provides for re-examination of the recommendation not more than five years after its adoption, notably in the light of the experience gained in the implementation of its guidelines.