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ADDENDUM

COMMITTEE OF BIOETHICS

(DH-BIO)

8th MEETING
Strasbourg, 1-4 December 2015

ADDENDUM

This document contains the:

- Draft Recommendation on research on biological materials of human origin which was approved by the Committee on Bioethics (DH-BIO) on 4 December 2015.

- Draft Explanatory Memorandum to the Draft Recommendation *on research on biological materials of human origin* which was drawn up under the responsibility of the Secretary General of the Council of Europe. It takes into account the discussions held in the DH-BIO and its Drafting Group entrusted with the drafting of the Recommendation; it also takes into account the remarks and proposals made by delegations. The Explanatory Memorandum is not an authoritative interpretation of the draft Recommendation. Nevertheless it covers the main issues of the preparatory work and provides information to clarify the object and purpose of the draft Recommendation and to better understand the scope of its provisions.

Recommendation CM/Rec(2016)… of the Committee of Ministers to member States on research on biological materials of human origin

Preamble

The Committee of Ministers, under the terms of Article 15.*b* of the Statute of the Council of Europe,

Considering that the aim of the Council of Europe is the achievement of greater unity between its members and that one of the methods by which this aim is pursued is the maintenance and further realisation of human rights and fundamental freedoms;

Considering that one of the aims of the Convention for the Protection of Human Rights and Fundamental Freedoms (ETS No. 5) is the protection of private life;

Considering that the aim of the Convention on Human Rights and Biomedicine (ETS No. 164) and of its Additional Protocol concerning biomedical research (CETS No. 195), as defined in Article 1 of both instruments, is to protect the dignity and identity of all human beings and guarantee everyone, without discrimination, respect for their integrity and other rights and fundamental freedoms with regard to the application of biology and medicine;

Acknowledging the fact that personal data must be adequately protected in accordance with data protection principles as laid down in the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (ETS No. 108);

Taking into account national and international professional standards in the area of biomedical research and the previous work of the Committee of Ministers and the Parliamentary Assembly of the Council of Europe in this field;

Recognising the value of biomedical research for the advancement of health care and for the improvement of the quality of life and the potential of collections of biological materials of human origin to facilitate the realisation of these benefits;

Stressing that research is often transdisciplinary and international, as reflected in the establishment of international research infrastructures that pool and share samples and data across national borders, and underlining the importance of interoperability in this context;

Taking into account the current and planned development of collections of biological materials of human origin at national level and the existence of collections set up for clinical purposes;

Recalling that biomedical research on biological materials should be carried out freely subject to the provisions of this Recommendation and the other legal provisions ensuring the protection of the individual;

Stressing that the paramount concern should be the protection of the human being whose biological materials are obtained, stored or used for research;

Emphasising that the interest and welfare of the person whose biological materials are used in research shall prevail over the sole interest of society or science;

Affirming that particular protection shall be given to persons who may be vulnerable in the context of research, especially to those who are not able to consent;

Considering that new developments in the field of biomedical research, in particular in the field of genetics, increase issues regarding protection of privacy;

Recognising that every person has the right to accept or refuse to contribute to biomedical research and that no one should be forced to contribute to it;

Emphasising the importance of earning trust and stressing the role of good and transparent governance of biological materials of human origin stored for research purposes, including the establishment of an appropriate feedback policy;

Recalling that researchers should be allowed fair access to collections developed on the basis of donations of biological materials of human origin made in a spirit of solidarity;

Resolving to take such measures as are necessary to safeguard human dignity and the rights and fundamental freedoms of the individual with regard to biomedical research on biological materials of human origin,

1. Recommends to the governments of member States:
   a. to adapt their laws and practices to ensure the implementation, including its follow-up, of the guidelines contained in the appendix to this Recommendation, which succeeds Recommendation Rec(2006)4;

   b. to promote the establishment of codes of good practice to ensure compliance with the guidelines contained in this appendix;

2. Entrusts the Secretary General of the Council of Europe with transmitting this Recommendation to the governments of the non-member States of the Council of Europe, which have been invited to sign the Convention on Human Rights and Biomedicine, to the European Union and to other relevant governmental and non-governmental international organisations.

* * *

Appendix to Recommendation CM/Rec(2016)…

Guidelines

Chapter I – Object and scope

Article 1 – Object

Member States should protect the dignity and identity of all human beings and guarantee everyone, without discrimination, respect for their integrity, the right to respect for private life and other rights and fundamental freedoms with regard to any research activity governed by this Recommendation.

Article 2 – Scope

1. This Recommendation applies to the following research activities:
   - the obtaining of biological materials of human origin for storage for future research purposes;
   - the storage of biological materials of human origin for future research purposes; and
   - the use in a research project of biological materials of human origin that are stored or were previously obtained for another purpose, including a previous research project.

2. This Recommendation does not apply to:
   - embryonic and foetal biological materials; and
   - the use in a specific research project of biological materials of human origin removed for the sole purpose of that project. This is within the scope of the Additional Protocol concerning Biomedical Research (CETS No. 195).

3. When obtained, stored or used, biological materials of human origin may be accompanied by associated personal data. Where in this Recommendation provisions make reference to biological materials of human origin, these extend, where relevant, also to associated personal data.

Article 3 – Identifiability of biological materials

1. Biological materials referred to in Article 2 may be identifiable or non-identifiable:

   i. "identifiable biological materials" are those biological materials which, alone or in combination with data, allow the identification of the persons from whom the materials have been removed, either directly or through the use of code(s).
   In cases where identification is possible through code(s), the user of the biological materials may have direct access to the code(s) or, alternatively, the code(s) may be under the control of a third party.

   ii. "non-identifiable biological materials" are those biological materials which, alone or in combination with data, do not allow, with reasonable efforts, the identification of the persons from whom the materials have been removed.

2. Non-identifiability should be verified by an appropriate review procedure.

Chapter II – General provisions

Article 4 – Risks and benefits in relation to research activities

1. The physical risks arising from removal of biological materials for storage for future research should be minimised.

2. The risks for the persons from whom biological materials have been removed and, where appropriate, for their family, related to research activities, in particular the risks to private life, should

be minimised, taking into account the nature of the research activity. Furthermore, these risks should not be disproportionate to the potential benefit of the research activities.

3. Possible risks for any individual in the same group as the person from whom biological materials have been removed should also be taken into consideration in this context.

Article 5 – Non-discrimination

1. Appropriate measures should be taken, in the full range of research activities, to prevent discrimination against, and to minimise the likelihood of stigmatisation of, any person, family or group.

2. Refusal to give consent to or authorisation for the removal, storage or research use of biological materials or the withdrawal or alteration of the scope of the consent or authorisation should not lead to any form of discrimination against the person concerned, in particular regarding the right to medical care.

Article 6 – Prohibition of financial gain

Biological materials of human origin should not, as such, give rise to financial gain.

Article 7 – Confidentiality

1. Any information of a personal nature collected at the time of removal, storage or use of biological materials, or obtained through research, should be considered as confidential and treated according to the rules relating to the protection of private life.

2. Appropriate safeguards should be in place to ensure confidentiality at the time of removal, storage, use and, where appropriate, transfer of biological materials.

Article 8 – Public information

Member States should take appropriate measures to facilitate access for the public to general information on the nature and objective of research collections and on the conditions relating to the obtaining, storage and use of biological materials for research purposes, including matters relating to consent or authorisation.

Article 9 – Wider protection

None of the provisions of this Recommendation should be interpreted as limiting or otherwise affecting the possibility for a member State to grant a wider measure of protection than is stipulated in this Recommendation.

Chapter III – Obtaining and storage for future research

Article 10 – Information

1. Prior to consent to or authorisation for the storage of biological materials for future research, the person concerned should be provided with comprehensible information that is as precise as possible with regard to:

- the nature of any envisaged research use and the possible choices that he or she could exercise;
- the conditions applicable to the storage of the materials, including access and possible transfer policies; and
- any relevant conditions governing the use of the materials, including re-contact and feedback.

2. The person concerned should also be informed of the rights and safeguards provided for by law, and specifically of his or her right to refuse consent or authorisation and to withdraw consent or

authorisation at any time, in accordance with Article 13. This information should also include any possible limitation on withdrawal of the consent or authorisation.

3. Prior to the removal of biological materials for storage for future research, the person concerned should be provided with additional information specific to the intervention carried out to remove the materials.

4. Persons who, according to law, are not able to consent should be informed in a manner compatible with their understanding.

Article 11 – Biological materials from persons able to consent

1. Biological materials should only be removed for storage for future research with the prior, free, express and documented consent of the person concerned that is:
   i. specific to the intervention carried out to remove the materials; and
   ii. as precise as possible with regard to the envisaged research use.

2. Biological materials previously removed for another purpose should only be stored for future research with the consent of the person concerned as provided for by law. Whenever possible, consent should be requested before biological materials are removed.

3. Biological materials previously removed for another purpose and already non-identifiable may be stored for future research subject to authorisation provided for by law.

Article 12 – Biological materials from persons not able to consent

1. Biological materials from a person who, according to law, is not able to consent should only be obtained or stored for future research having the potential to produce, in the absence of direct benefit to the person concerned, benefit to other persons in the same age category or afflicted with the same disease or disorder or having the same condition, and if the aims of the research could not reasonably be achieved using biological materials from persons able to consent.

2. Biological materials should only be removed for storage for future research from a person not able to consent under the following conditions:
   a. the removal only entails minimal risk and minimal burden; and
   b. written authorisation for such removal has been given by the representative or an authority, person or body provided for by law. The necessary authorisation should be:
      i. specific to the intervention carried out to remove the materials; and
      ii. as precise as possible with regard to the envisaged research use.

3. Biological materials previously removed for another purpose from a person not able to consent should only be stored for future research with the authorisation of his or her representative or an authority, person or body provided for by law. Whenever possible, authorisation should be requested before biological materials are removed.

4. If the person not able to consent is an adult, he or she should, as far as possible, take part in the authorisation procedure. If the person not able to consent is a minor, his or her opinion should be taken into consideration as an increasingly determining factor in proportion to age and degree of maturity. Any objection by the person not able to consent should be respected. Any wishes previously expressed by such a person should be taken into account.

5. Where a person not able to consent, whose biological materials have been stored for future research, attains or regains the capacity to consent, reasonable efforts should be made to seek the consent of that person for continued storage and research use of his or her biological materials.

6. Biological materials previously removed for another purpose from a person not able to consent and which are already non-identifiable may be stored for future research subject to authorisation provided for by law.

Article 13 – Right to withdraw consent or authorisation

1. When a person has provided consent to storage of identifiable biological materials for future research, the person should, without being subject to any form of discrimination, in particular regarding the right to medical care, retain the right to withdraw consent at any time, and, where possible, should also be able to alter the scope of that consent. When identifiable biological materials are stored for research purposes only, the person who has withdrawn consent should have the right to have, in the manner foreseen by law, the materials and associated data either destroyed or rendered non-identifiable. The person who is considering withdrawing consent should be made aware of any limitations on withdrawal of his or her biological materials.

2. The representative, authority, person or body provided for by law having given authorisation for storage for future research of identifiable biological materials removed from a person who, according to law, is not able to consent, should have the rights referred to in paragraph 1 without any form of discrimination for the person from whom the material has been removed, in particular regarding the right to medical care. Where the person from whom biological materials have been removed attains or regains the capacity to give consent, that person should have the rights referred to in paragraph 1.

Article 14 – Biological materials removed after death

1. Biological materials should only be removed from the body of a deceased person for storage for future research with the consent or authorisation provided for by law. This consent or authorisation should have been preceded by appropriate information, including on the right to refuse.

2. Biological materials should not be removed for storage for future research if the deceased person is known to have objected to it.

Chapter IV – Governance of collections

Article 15 – General rule

Biological materials intended to be used for future research should only be stored in a structured manner and in accordance with the principles of governance laid down in this chapter.

Article 16 – Governance principles

1. The person and/or institution responsible for the collection should be designated and this information should be publicly available.

2. The purpose(s) of the collection should be specified. The principles of transparency and accountability should govern its management, including, where appropriate, access to, use and transfer of biological materials, and disclosure of information.

3. Any change of purpose of a collection should be subject to an independent examination of its compliance with the provisions of this Recommendation and, where necessary, may require that appropriate consent or authorisation of the persons concerned be requested.

4. Each sample of biological material in the collection should be appropriately documented and traceable, including information on the scope of any consent or authorisation.

5. Quality assurance measures should be in place, including conditions to ensure appropriate security and confidentiality during establishment of the collection, as well as storage, use and, where appropriate, transfer of biological materials.

6. Procedures should be established for any transfer of the whole or part of the collection, as well as for the closure of the collection; these should be in accordance with the original consent or authorisation.

7. Information about the management and use of the collection should be made available to the persons concerned and should be regularly updated, with a view to facilitating, where appropriate, the exercise of the rights laid down in Article 13.

8. Reports on past and planned activities should be made public at least annually, including information about access granted to biological materials and progress on research projects using biological materials. A summary of findings should be made public on completion of each research project.

Article 17 – Individual feedback

1. Clear policies should be in place on feedback concerning findings that are relevant for the health of the persons resulting from the use of their biological materials, including persons who, according to law, are not able to consent.

2. Where provided, feedback should take place within a framework of appropriate health care or counselling.

3. The wishes of individuals not to be informed about findings that are relevant for their health should be observed.

Article 18 – Access

1. Member States should take measures to facilitate appropriate access by researchers to collections of biological materials.

2. Clear conditions governing access to and use of biological materials should be established and documented, including respect for possible restrictions defined by the persons concerned.

3. Transparent access policies should be developed and published, including arrangements for oversight of access and transfer procedures.

4. Appropriate access mechanisms should be developed to maximise the value of collections. These should include traceability of the use of the biological materials to which access was granted.

Article 19 – Transborder flows

1. Biological materials should only be transferred to another State if an appropriate level of protection is either ensured by the law of that State or by legally binding and enforceable instruments adopted and implemented by the parties involved in the transfer for future research activities.

2. The transfer of biological materials should be done under appropriate safety and confidentiality conditions.

3. A documented agreement between the sender of the biological materials and the recipient should be signed. Appropriate consent or authorisation, including, where appropriate, any relevant restriction defined by the person concerned, should be included in the agreement.

Article 20 – Oversight

1. Any proposal to establish a collection of biological materials should be subject to an independent examination of its compliance with the provisions of this Recommendation.

2. Each collection should be subject to independent oversight which is proportionate to the risks involved for the persons whose biological materials are stored in the collection. Such oversight should aim in particular at safeguarding the rights and interests of the persons concerned in the context of the activities of the collection.

a. Oversight mechanisms should cover, at a minimum:

i. the implementation of security measures and of procedures on access to, and use of, biological materials;

ii. the publication, at least annually, of reports on past and planned activities, including information about access granted to biological materials and progress on research using biological materials;

iii. the change in the risks to persons whose biological materials are stored in the collection and, where appropriate, revision of policies;

iv. the provision of appropriate information to the persons concerned of changes in the management of the collection in order to be able, where appropriate, to exercise the rights laid down in Article 13; and

v. the development and implementation of feedback policies, including regular review.

b. Oversight mechanisms should be able to adapt to possible evolutions of the collection and of its management.

Chapter V – Use of biological materials in a research project

Article 21 – General rule

1. Biological materials should only be used in a research project if the latter is within the scope of the consent or authorisation given by the person concerned.

2. *a*. If the proposed use of identifiable biological materials in a research project is not within the scope of prior consent or authorisation, if any, given by the person concerned, consent or authorisation to the proposed use should be sought and, to this end, reasonable efforts should be made to contact the person concerned. The wish of the person concerned not to be contacted should be observed.

b. Where the attempt to contact the person concerned proves unsuccessful, these biological materials should only be used in the research project subject to an independent evaluation of the fulfilment of the following conditions:

i. evidence is provided that reasonable efforts have been made to contact the person concerned;

ii. the research addresses an important scientific interest and is in accordance with the principle of proportionality;

iii. the aims of the research could not reasonably be achieved using biological materials for which consent or authorisation can be obtained; and

iv. there is no evidence that the person concerned has expressly opposed such research use.

3. Any use of biological materials in an identifiable form should be justified in advance in the research protocol.

4. Non-identifiable biological materials may be used in a research project provided that such use does not violate any restrictions defined by the person concerned before the materials have been rendered non-identifiable and subject to authorisation provided for by law.

5. Biological materials from persons who, according to law, are not able to consent should only be used for research having the potential to produce, in the absence of direct benefit to the person concerned, benefit to other persons in the same age category or afflicted with the same disease or disorder or having the same condition, and if the aims of the research could not reasonably be achieved using biological materials from persons able to consent.

Article 22 – Independent review

1. Research should only be undertaken if the research project has been subject to an independent examination of its scientific merit, including assessment of the importance of the aim of the research, and verification of its ethical acceptability. The law may additionally require approval by a competent body.

2. Member States should apply the principles concerning ethics committees contained in Chapter III of the Additional Protocol concerning Biomedical Research (CETS No. 195) to the review of the research project within the scope of this Recommendation.

3. Review procedures may be adapted to the nature of the research and the extent to which the persons from whom biological materials have been removed could be identified from these biological materials.

Article 23 – Availability of results

1. On completion of the research, a report or summary should be submitted to the ethics committee or the competent body and, if applicable, to the person and/or institution responsible for the collection that granted access to the biological materials.

2. The researcher should take appropriate measures to make public the results of research in reasonable time.

Chapter VI – Re-examination of the Recommendation

Article 24 – Re-examination of the Recommendation

This Recommendation should be regularly re-examined after its adoption, notably in the light of new developments in the field and the experience acquired in the implementation of its guidelines.

Draft Explanatory Memorandum to the draft Recommendation on research on biological materials of human origin

prepared under the responsibility of the Secretariat

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 Committee on Bioethics (DH-BIO), 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

i. Biomedical research can be performed not only with human subjects, but also with biological materials of human origin. The use in a specific research project of biological materials of human origin removed for the sole purpose of that project is addressed by the Additional Protocol to the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine (Convention on Human Rights and Biomedicine, ETS No. 164, 1997) concerning biomedical research (CETS No. 195, 2005). This Recommendation addresses the obtaining of biological materials of human origin, and their storage for future research purposes, as well as their use in a research project. The provisions of this Recommendation also cover associated personal data that may be accompanying biological materials when obtained, stored and used for research purposes.

ii. This Recommendation is the outcome of the re-examination of Recommendation Rec(2006)4 on research on biological materials of human origin, adopted by the Committee of Ministers on 15 March 2006 with the aim to protect the human dignity and the rights and fundamental freedoms of persons whose biological materials are obtained and stored for future research purposes, and used in specific research projects.

iii. The benefits for human health of the acquisition of knowledge from research on biological materials utilising systematic methodologies in the field of biomedicine are widely acknowledged. Biomedical research on biological materials of human origin that have been obtained and stored for future research is a powerful tool to improve human health and healthcare systems. The increasing development of collections and cross border flow of such materials and associated data testify for their importance in the biomedical research field.

iv. However, this kind of biomedical research also raises questions concerning the right to respect for private life, not only of the persons whose biological materials and data are used, but also of their relatives and of the groups to which they belong. Developments in genetics and information technology, which have made the processing and exchange of data much easier, have greatly benefited scientific cooperation in the field of biomedicine. But they also have considerably increased the risks for the private life of the persons involved. Furthermore, concern has been expressed on the possible consequences of these developments on the autonomy that persons have over their own body and over the biological materials once they have been removed.

v. The purpose of this Recommendation is to set out and safeguard fundamental rights of individuals whose biological materials are intended for biomedical research, while recognising 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 aim that facilitates the accomplishment of important social goals through research.

vi. Since the adoption of Recommendation Rec(2006)4 on research on biological materials of human origin, important developments in the field have raised additional challenges. These developments include, in particular:

- the increasingly diverse origins of biological materials that are stored in collections;
- the difficulty to guarantee non-identifiability of biological materials and associated data;
- the importance for research of biological materials removed from persons who, according to law, are considered not able to consent; and
- the increasing amount of multicentre research using large quantities of biological materials and associated personal data coming from different collections.

vii. This Recommendation was drafted with these developments in mind and in the light of the experience acquired in the implementation of Recommendation Rec(2006)4 on research on biological materials of human origin.

Drafting of the Recommendation

viii. According to its Article 26, Recommendation Rec(2006)4 of the Committee of Ministers on research on biological materials of human origin was to be re-examined within five years after its adoption. The re-examination process was initiated by the DH-BIO with the organisation of a Symposium on biobanks and biomedical collections: an ethical framework for future research, which was prepared by a group chaired Dr Anne FORUS (Norway) and further composed of Prof. Dr Elmar DOPPELFELD (Germany),), Prof. Graeme LAURIE (United Kingdom), Dr Siobhán O'SULLIVAN (Ireland) and Dr Lino PAULA (European Commission), and which took place in Strasbourg from 19 to 20 June 2012. Speakers and participants examined developments in the field since 2006 and considered their possible evolution, in order to assess the challenges they may raise with respect to the ethical and legal principles enshrined in the Recommendation.

ix. Following the Symposium, the DH-BIO, at its second 2nd plenary meeting (4-6 December 2012), under the chairmanship of Prof. Eugenijus GEFENAS (Lithuania), entrusted a Group chaired by Dr Javier ARIAS DIAZ (Spain), and further composed of Prof. Dr Elmar DOPPELFELD (Germany), Prof. Graeme LAURIE (United Kingdom), Dr Siobhán O'SULLIVAN (Ireland), Dr Lino PAULA (European Commission)[1] and Ms Ana Skat NIELSEN (Denmark)[2] with preparing proposals for the revision of Rec(2006)4.

x. The Drafting Group prepared a preliminary draft of a revised Recommendation, which was discussed by the DH-BIO during its 3rd (28-30 May 2013) and 4th (26-28 November 2013) plenary meetings, under the chairmanship of Dr Anne FORUS (Norway). The DH-BIO furthermore consulted the Consultative Committee of the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (T-PD) on specific data protection issues identified by the drafting group.

xi. A public consultation on the working document presenting the draft revised Recommendation was held between March and August 2014. During the consultation, the DH-BIO received an overall number of 43 sets of comments from the different fields concerned. Furthermore, the T-PD, having been invited by the DH-BIO, submitted its opinion on the working document.

xii. A revised draft prepared by the Drafting Group in the light of the comments received during the public consultation and taking into account the opinion of the T-PD, was examined by the DH-BIO during its 7th meeting (4-7 May 2015) and 8th meeting (1-4 December 2015), chaired by Dr Mark BALE (United Kingdom). The comments and suggestions, which were made by delegations on the revised draft Recommendation contributed to the drafting of its final text and to this Explanatory Memorandum.

[1] 1st meeting of the Drafting Group
[2] Until end of 2013.

Comments on the provisions of the Recommendation

Preamble

1. The Preamble of this Recommendation reaffirms the aims of the Council of Europe and the principles embodied in the Convention on Human Rights and Biomedicine. It also reaffirms the relevant provisions of the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (ETS No. 108, 1981).

2. The Preamble recalls the principles on which the provisions of this Recommendation are based and in particular underlines the following aspects:

    - biomedical research, including research on biological materials of human origin, is essential for the advancement of health care and improvement of quality of life;

    - biomedical research on biological materials of human origin should always safeguard human dignity and the rights and fundamental freedoms of the individual;

    - every person has the right to accept or refuse to contribute to biomedical research and no one should be forced to contribute to it;

    - the interest and welfare of a person whose biological materials are used for research purposes shall prevail over the sole interests of society or science;

    - particular protection shall be given to persons who may be vulnerable in the context of biomedical research, especially to those who, according to law, are considered not able to consent;

    - particular attention should be paid to the earning of trust and to ensuring a good and transparent governance of biological materials of human origin stored for research purposes, considering their importance; and

    - the fair access to collections and the interoperability between collections are important for facilitating the realisation of the benefits for human health of research on human biological materials.

Guidelines

Chapter I – Object and scope

Article 1 – Object

3. 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, right to respect for private life and other rights and fundamental freedoms with regard to any research activity governed by this Recommendation. This Article reflects Article 1 of the Convention on Human Rights and Biomedicine and its Additional Protocol concerning biomedical research.

Article 2 – Scope

4. This Recommendation covers the following research activities: the obtaining of biological materials of human origin for future research purposes, as well as the storage and use of such materials in a research project.

5. "Research activities" includes the continuum of research on biological materials of human origin and associated personal data, from the recruitment of donors of biological materials or other methods of obtaining biological materials for research purposes, storage of biological materials for research, to the research projects themselves. "Research" means research on biological materials of human origin and associated personal data for health purposes or for scientific research linked to health purposes. This Recommendation covers research into molecular, cellular as well as other mechanisms in health which are involved in disorder and disease; as well as diagnostic, therapeutic and preventive studies on biological materials, including public health research. This list is not meant to be exhaustive.

6. "Obtaining" refers to the different methods of collecting biological materials of human origin. Within the scope of this Recommendation are interventions to remove biological materials to be stored for future research. The scope also covers the obtaining of biological materials that were previously removed for another purpose, such as within a diagnostic or therapeutic setting or during specific research projects, and are further stored for future research.

7. The Recommendation applies to:

    i. any collection of biological materials of human origin stored for future research purposes, regardless of the characteristics of the collection (for instance concerning size, structure, organisation or terminology used); and
    ii. any collection of biological materials of human origin that was created before the adoption of this Recommendation with regard to future research uses.

8. The Recommendation also covers the use in a research project of biological materials of human origin that are stored or were previously obtained for another purpose.

9. The use in a specific research project of biological materials of human origin removed for the sole purpose of that project does not fall within the scope of the Recommendation but within the scope of the Additional Protocol concerning Biomedical Research.

10. This Recommendation does not apply to embryonic or foetal biological materials because of the specificity of the ethical questions raised.

11. "Biological materials" includes, but is not limited to, organs, tissues and cells, blood, serum, plasma, cord blood and placental tissue, DNA and RNA, urine, saliva and other bodily fluids of human origin. As the scope of this Recommendation is limited to the research field, "biological materials" does not cover therapeutic products, other derived products, medical devices or pharmaceuticals.

12. When obtained, stored and used, biological materials may be accompanied by associated personal data. These may include associated data collected for the purpose of research on

biological materials and associated personal data created by analysing the biological materials or by performing research on them. It is stated in paragraph 2 that, where in this Recommendation provisions make reference to biological materials, these extend, where relevant, also to associated personal data. These data must in all cases be adequately protected in accordance with the relevant data protection principles, as set forth in the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal Data 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 and on the Free Movement of Such Data, which state that personal data means any "information relating to an identified or identifiable individual". It is useful to recall that relevant provisions with regard to the protection of personal data in this field have also been set forth by the Committee of Ministers in other legal instruments, including Rec(83)10 on the protection of personal data used for scientific research and statistics, Rec(92)3 on genetic testing and screening for health purposes, Rec(97)5 on the protection of medical data, Rec(2002)9 on the protection of personal data collected and processed for insurance purposes and Rec(2010)13 on the protection of individuals with regard to automatic processing of personal data in the context of profiling.

Article 3 – Identifiability of biological materials

13. 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 data, allow the identification of the persons from whom the materials have been removed, either directly or through the use of code(s). In cases where identification is possible through code(s), the user of the biological materials may have direct access to the code(s) or, alternatively, the code(s) may be under the control of a third party.

14. It should be noted that, in accordance with this classification, different levels of identifiability may exist, depending on whether no code, a single code or multiple codes are used, and depending on whether the user of the materials or a third party has access to the code(s), if any. Accordingly, what is sometimes referred to as "coded", or "pseudo-anonymised" biological materials are to be considered identifiable biological materials.

15. 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.

16. This Article also addresses non-identifiable biological materials. This expression refers to biological materials that, alone or in combination with data, do not allow, with reasonable efforts, the identification of persons from whom the materials have been removed. Non-identifiable biological materials would be materials which do not contain 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.

17. It should be noted that the non-identifiability of the person from whom the biological materials have been removed cannot be guaranteed, taking into account the rapidly evolving technological advances, increased availability of data and increased linking of databases and the inherent identifiability of DNA.

18. In the light of the risks implied by re-identification, all possible measures addressing such risks, both of a technical and organisational nature (regarding for instance access to data that have been rendered non-identifiable), should be taken and should be regularly reviewed to ensure that new technological developments do not allow, with reasonable efforts, the identification of persons from whom the materials have been removed.

19. The procedure whereby the biological materials are rendered non-identifiable should be submitted to an appropriate evaluation procedure. Where necessary, specific guidelines in this area could be elaborated.

Chapter II – General provisions

Article 4 – Risks and benefits in relation to research activities

20. This Article addresses two categories of risks in relation to research activities:
    - physical risk arising from the intervention to remove the biological materials;
    - the other risks, in particular for private life, related to the obtaining, storing and use of biological materials.

21. Paragraph 1 requires that all reasonable measures should be taken to minimise for the persons concerned the physical risks, including the post-interventional risks, arising from the removal of their biological materials for storage for future research.

22. Paragraph 2 states two conditions which are cumulative:
    - the risks for the persons from whom the materials have been removed, 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 envisaged use.

    Misinterpretation of information, psychological distress, stigmatisation and use of unvalidated research findings are among those risks.

23. The full range of risks to which research activities on biological materials may give rise, including those involved in the long-term management of the collection, should be identified and assessed at the earliest possible stage in order to be minimised in an appropriate manner.

24. The requirement to minimise the risks implies that, whenever possible, biological materials should be stored and used in a non-identifiable form. However, rendering the biological materials non-identifiable may be incompatible with the scientific requirements of the research projects or be contrary to the interests of the persons concerned. In evaluating whether it is appropriate to render the biological materials non-identifiable, it should be considered whether the scientific quality of a project could be compromised by resorting to the use of non-identifiable 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 projects. If that would be the case, it may not be appropriate to render the biological materials non-identifiable, as it would prevent any possibility of giving health-related feedback resulting from the research to the persons concerned.

25. Where biological materials are identifiable, it is necessary to have a well-developed framework of protection to ensure that the risks to persons from whom the biological materials have been removed are minimised. Member States are responsible for ensuring that such a framework exists. In this regard, it should also be noted that, in accordance with Article 21, paragraph 3 of this Recommendation any use of biological materials in an identifiable form should be justified in advance by the researcher in the research protocol submitted to the ethics committee.

26. In certain cases, risks could also appear for any individual in the same group to which the person from whom the biological materials have been removed belongs, such as risk of stigmatisation and discrimination. This may in particular be the case where a group is perceived on the basis of their shared genetic characteristics. Paragraph 3 requires that these risks should also be taken into consideration. It should be noted that these risks may exist even if the biological materials have been rendered non-identifiable because the group to which the person belongs may still be identifiable.

Article 5 – Non-discrimination

27. Paragraph 1 states that appropriate measures should be taken, in the full range of research activities, to prevent discrimination against, and to minimise the likelihood of stigmatisation of, any person, family or group. A distinction can be drawn between stigmatisation and discrimination, in that stigmatisation is not necessarily relevant to the exercise of an individual right. The concept of “stigmatisation” rather relates to the way in which a person or group is

perceived on the basis of their characteristics, whether these exist or are thought to exist. It takes, in particular, the form of words or acts that negatively label a person or group of persons on account of their known or supposed characteristics.

28. Non-discrimination is an individual right enshrined in Article 14 of the Convention on Human Rights. Under this Article, the enjoyment of the rights and freedoms set forth in the Convention must be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status. The provisions of Article 11 of the Convention on Human Rights and Biomedicine add the person's genetic heritage to this list.

29. 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 European Court of Human Rights and in the Convention on Human Rights and Biomedicine. Discrimination here must, therefore, in French as in English, be understood as unfair discrimination.

30. Research on stored biological materials may not carry great risks of discrimination and stigmatisation for individual research subjects if their materials have been rendered non-identifiable. However, risks may exist for groups that could be linked to these persons. 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 a specific 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.

31. 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 person from whom biological materials have been removed should be respected, in particular in relation to employment and insurance.

32. Paragraph 2 states that refusal to give consent or authorisation to the removal, storage or research use of biological materials should not lead to any form of discrimination against the person from whom biological materials have been removed, in particular regarding the right to medical care. The same applies to the withdrawal or alteration of the scope of the consent or authorisation. This provision reaffirms the principle set out in Articles 14 and 15 of the Additional Protocol concerning biomedical research.

33. For the purposes of this Recommendation, the term "authorisation" has to be understood in the light of Article 6, paragraphs 2 and 3, of the Convention on Human Rights and Biomedicine. Where, according to law, a minor or an adult does not have the capacity to consent to the removal, storage or research use of his or her biological materials, these research activities may only be carried out with the authorisation of his or her representative or an authority, person or body provided for by law.

Article 6 – Prohibition of financial gain

34. The principle that biological materials should not, as such, give rise to financial gain is set out in this Article. This provision recalls the principle enshrined in Article 21 of the Convention on Human Rights and Biomedicine. Under this provision biological materials, as such, should not be bought or sold or give rise to financial gain for the person from whom they have been removed or for a third party, whether an individual or a corporate entity such as, for example, a hospital.

35. The prohibition of financial gain does not prevent payments for legitimate scientific or technical services rendered in connection with the obtaining, storage and use of such biological materials. This provision does also not prevent a person from whom biological materials have been removed from receiving compensation, which, while not constituting remuneration, compensates

that person equitably for loss of income and any justifiable expenses incurred as the result of the removal or related examinations.

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

Article 7 – Confidentiality

37. Paragraph 1 reaffirms the principle of confidentiality of information of a personal nature collected in the field of research on biological materials, thereby reaffirming the principle 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. It should be pointed out that, under Article 6 of the latter Convention, personal data concerning health constitute a special category of data and are as such subject to special rules. This principle was also reiterated in Article 10 of the Convention on Human Rights and Biomedicine.

38. Paragraph 2 requires that biological materials should only be obtained, stored, transferred and used in such conditions as to ensure the confidential nature of the data which may be associated or may be obtained from them. Appropriate safeguards should thus be taken, in particular against unauthorised access or use.

Article 8 – Public information

39. The purpose of this Article is to prompt the member States to take appropriate measures to facilitate access for the public to general information on the nature and objective of research collections. This information should also include the conditions relating to the obtaining, storage and use of biological materials for research purposes. This provision aims to increase transparency, particularly on the conditions relating to consent or authorisation. To enable better understanding of this field of research, the progress it opens up for human health and its limitations, it is important for the general public to have access to such information in a comprehensible form.

40. The choice of appropriate measures is left to the individual member State and will depend in particular on the quality of the information already accessible for the public. Information campaigns or creation of Internet sites are among the measure which could be adopted to meet the object of informing the general public. Promoting and supporting such initiatives are examples of measures which member States can take to satisfy this provision.

Article 9 – Wider protection

41. This Article states that none of the provisions of this Recommendation should be interpreted as limiting or otherwise affecting the possibility for a member State to grant a wider measure of protection than is stipulated in this Recommendation. This provision 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 and storage for future research

Article 10 – Information

42. Prior to any request for consent or authorisation, the person concerned should receive appropriate information. Without prejudice to the system of consent and authorisation provided for by law, such information is an integral part of the consent process and is crucial for its validity. Article 10 specifies the content of this information taking into account the different situations covered by this Chapter.

43. For the purpose of this Article, “person concerned” refers to the person from whom biological materials have been removed as well as, in case that person is not able to consent, to that person’s representative or an authority, person or body provided for by law.

44. Paragraph 1 provides that prior to consent or, where research activities involve biological materials from a person who, according to law, is not able to consent, authorisation, the person concerned should be provided with comprehensible information with regard to the nature of any research use foreseen. This information should be as precise as possible with regard to the nature of the research use to the extent that it is already known at the time of removal (e.g., research concerning a particular disease). The person concerned should also receive information on the possible choices that he or she could exercise with regard to the nature of future research use of their biological materials.

45. The person concerned should also be provided with comprehensible information that is as precise as possible with regard to the conditions applicable to the storage of the materials, including access and possible transfer policies. Examples include information on the duration of storage, the governance structure, the nature of funding and the system of oversight of the collection, the arrangements to ensure security and confidentiality, and the policy of access to and transfer of materials including possible transfer to another country.

46. Furthermore, the person concerned should also be provided with comprehensible information that is as precise as possible with regard to any relevant conditions governing the use of the materials. This should in particular include information on the terms of re-contact and feedback and should also include information on the commercial applications that might result from the research use.

47. On the basis of the principle laid down in Article 16. iv and Article 17.1. i of the Convention on Human Rights and Biomedicine, paragraph 2 provides that the person concerned should also be informed of the rights and safeguards prescribed by law. This specifically includes the right to refuse as well as to withdraw consent or authorisation at any time in accordance with Article 13 of this Recommendation. The person concerned should also be provided with comprehensible information with regard to any possible limitation on the withdrawal of his or her consent or authorisation.

48. Paragraph 3 states that prior to the removal of biological materials for storage for future research the person concerned should be provided with additional information that is specific with regard to the intervention carried out to remove the materials in accordance with Article 5 of the Convention on Human Rights and Biomedicine.

49. Paragraph 4 specifies that persons not able to consent should be informed in a manner compatible with their ability to understand. Ability to understand should be construed in a relatively broad sense as taking in both discernment and reasoning. In the case of a minor, this will depend, in particular, on the person's age and degree of maturity.

Article 11 – Biological materials from persons able to consent

50. Paragraph 1 enunciates the rule that free, express and documented consent of the person concerned should be obtained before biological materials are removed for storage for future research. This consent should be specific to the intervention carried out to remove the materials and be as precise as possible with regard to the research use envisaged.

51. Paragraph 2 provides that materials previously removed for another purpose should only be stored for future research with the consent of the person concerned, provided for by law. The law may provide for different modalities of consent and for specific situations. However, in all cases, and without prejudice to the provisions of Article 10, it is essential that appropriate information is provided about the consent regime applicable in accordance with Article 8. "Another purpose" includes a diagnostic or therapeutic purpose or a specific research project. This paragraph therefore also covers the situation whereby materials that were initially stored for clinical purposes are subsequently stored for future research.

52. Where appropriate, consent should also cover the possibility of being re-contacted or not being re-contacted in case there are findings that may be relevant for the health of the persons concerned resulting from the research use of their biological materials.

53. Recalling the principle set out in Article 23 of the Additional Protocol concerning biomedical research, storage for future research of biological materials previously removed for another purpose should not negatively affect or limit their primary use, especially if it is in the field of diagnostics or therapeutic care.

54. Whenever possible, the consent of the person should be requested before the biological materials are removed. An example of how such procedure could be carried out is by informing hospital patients during their registration that their biological materials could be stored for future research use and requesting consent to such storage at that time. This avoids re-contacting the person later on to request consent. In some circumstances however, it would be a questionable practice to seek consent for storage for future research 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 use with biological materials that are being collected for clinical purposes. In these circumstances, it would not be objectionable to store the materials and seek consent at a later time but prior to any actual research use.

55. Where documented consent has been obtained, the existing document may indicate whether the person from whom the biological materials have been removed wished his or her materials to be included in future research and may indicate the nature of research use with which he or she would agree or disagree. Consent to future research use of biological materials should be requested separately from that for the clinical intervention or intervention for a specific research project.

56. Paragraph 3 provides that biological materials previously removed for another purpose and already non-identifiable may be stored for future research subject to authorisation provided for by law. In accordance with Article 3, paragraph 2, the procedure whereby the biological materials are rendered non-identifiable should be verified by an appropriate review procedure. It should be noted that this provision only concerns materials that have been rendered non-identifiable before storage for future research was considered and that it does not allow rendering the materials non-identifiable as a way to avoid fulfilling the consent requirements for storage for future research.

Article 12 – Biological materials from persons not able to consent

57. Taking into account the increasing importance of research on biological materials from persons, whether adults or minors, who, according to law, are not able to consent, this Article defines the protective conditions under which such biological materials may be stored for future research. It is noted that the capacity to consent is understood, in accordance with Article 5 of the Convention on Human Rights and Biomedicine, in relation to a given intervention and with reference to the applicable provisions prescribed by national law.

58. Paragraph 1 sets out two additional conditions for research activities on biological materials from persons who, according to law, are not able to consent.

59. The first condition is that the future research use of such biological materials should have the potential to produce, in the absence of direct benefit to the person concerned, benefit to other persons in the same age category or afflicted with the same disease or disorder or having the same condition. The second condition is that the aims of the future research use could not reasonably be achieved using biological materials from persons able to consent.

60. These provisions reaffirm principles introduced in Article 17 of the Convention on Human Rights and Biomedicine and reiterated in Article 15 of its Additional Protocol concerning biomedical research.

61. As stated in paragraph 2, biological materials may only be removed for storage for future research from a person not able to consent, if the removal only entails minimal risk and minimal burden and with the written authorisation from the representative or an authority, person or body

provided for by law. This authorisation should be specific to the intervention carried out to remove the materials and as precise as possible with regard to the research use envisaged.

62. Paragraph 3 provides that the biological materials that were previously removed for another purpose should only be stored with the authorisation from the representative of the person not able to consent, or an authority, person or body provided for by law. Whenever possible, the authorisation should be requested before biological materials are removed. As indicated in paragraph 54 above, this avoids having to re-contact the person or body concerned later on to request authorisation.

63. Paragraph 4 provides that adults not able to consent should, as far as possible, take part in the authorisation procedure. Where the persons not able to consent are minors, their opinion should be taken in consideration as an increasingly determining factor in proportion to their age and degree of maturity. Any objection by persons not able to consent should be respected and any wishes previously expressed by such persons should be taken into account.

64. Paragraph 5 provides that where the person from whom biological materials have been removed for storage for future research attains or regains the capacity to consent, reasonable efforts should be made to seek the consent of that person for continued storage and research use of his or her biological materials. This would then be relevant both to the case of a child and of an adult; even though it is acknowledged that it might be more difficult to identify such situation in the case of the latter.

65. Paragraph 6 provides that biological materials previously removed for another purpose and already non-identifiable may be stored for future research subject to authorisation provided for by law. In accordance with Article 3, paragraph 2 of this Recommendation, the method whereby the biological materials are rendered non-identifiable should be verified by an appropriate review procedure. It should be noted that this provision only concerns materials that have been rendered non-identifiable before storage for future research was considered and that it does not allow rendering the materials non-identifiable as a way to avoid fulfilling the authorisation requirements for storage for future research.

Article 13 – Right to withdraw consent or authorisation

66. The first paragraph of this Article provides that a person who has provided consent to storage of identifiable biological materials for future research purposes should, without being subject to any form of discrimination, in particular regarding the right to medical care, retain the right to withdraw consent at any time. This provision reaffirms the principle introduced in Article 5 of the Convention on Human Rights and Biomedicine that freedom of consent implies an unconditional right to withdraw consent at any time and without specification of reason. When the person has withdrawn his or her consent, the Article provides that he or she should have the right to have, in the manner foreseen by national law, the biological materials and associated data either destroyed or rendered non-identifiable. Certain flexibility is therefore left for national systems to choose between these possibilities.

67. The person who is considering withdrawing consent should be made aware of any limitations on withdrawal of his or her biological materials. It should be noted that, in certain cases, the destruction of the biological materials could negatively affect the value of the entire collection, for example in the case of small collections containing rare biological materials.

68. The Recommendation also emphasises that it is best practice to, where possible, offer any person who has provided consent to storage of identifiable biological materials for future research the possibility to alter the scope of that consent.

69. Paragraph 2 addresses the situation where the biological materials stored for future research have been removed from a person who, according to law, is not able to consent. It provides that the representative, authority, person or body provided for by law having given authorisation for storage for future research of the identifiable biological materials should, without any form of discrimination for the person from whom the materials have been removed, in particular regarding the right to medical care**,** retain the right to withdraw authorisation at any time, and

where possible should also be able to alter the scope of that authorisation. Where the person from whom biological materials have been removed attains or regains the capacity to consent, he or she should have the rights set out in paragraph 1.

70. Article 26 of the Convention on Human Rights and Biomedicine can be recalled in the context of this provision. 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 14 – Biological materials removed after death

71. This Article provides that biological materials should only be removed from the body of a deceased person for storage for future research with the consent or authorisation, provided for by law. Biological materials should not be removed 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. Efforts should be made to gather information about the wishes of the deceased person. The difficulty lies in cases where no one is sure what the deceased actually thought about research. A reasonable approach might be to ask the person whose authorisation is requested to remove the materials if he or she knows whether the deceased person had objected to research.

72. This Article also sets out the requirement that, without prejudice to the system of consent and authorisation provided for by law, prior appropriate information should be provided on the possible removal of biological materials from the body of a deceased person for storage for future research. This should include information on the applicable system of consent and authorisation and on the right and the modalities to refuse. In this regard, it should be recalled that Article 8 of this Recommendation already recommends member States to take appropriate measures to facilitate access for the public to general information on the conditions relating to the obtaining, storage and use of biological materials for research purposes, including matters relating to consent or authorisation.

Chapter IV – Governance of collections

73. For the purposes of this Recommendation, biological materials that are stored for future research constitute a collection.

Article 15 – General Rule

74. This Article states that biological materials intended to be used for future research should only be stored in a structured manner and in accordance with the principles of governance laid down in this chapter.

Article 16 – Governance principles

75. This Article sets out the principles applicable to any collection.

76. Paragraph 1 states that the person and/or institution responsible for the collection should be designated and this information should be made public.

77. Paragraph 2 provides that the purpose(s) of the collection should be specified. Under the principles of transparency and accountability, this paragraph emphasises the need to set conditions governing the management of the collection, including, where appropriate, access to and use and transfer of its biological materials, in particular when the latter are rare or scarce. Furthermore, the policy regarding the disclosure of information related to biological materials should be stated.

78. Paragraph 3 states that any change of purpose of a collection should be subject to an independent examination of its compliance with the provisions of this Recommendation and, where necessary, may require that appropriate consent or authorisation of the persons concerned be requested. “Independent examination” refers to an examination that is carried out by a body that is independent from the management of the collection. 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.

79. Paragraph 4 provides that each sample should be appropriately documented and traceable, including information on the scope of any consent or authorisation, the form of which should be retained.

80. Paragraph 5 states that quality assurance measures should be in place, including conditions to ensure appropriate security and confidentiality during establishment, storage, use and, where appropriate, transfer of biological materials, of the collection.

81. As specified in paragraph 6, procedures should be developed for any transfer of the whole or part of the collection as well as for the closure of the collection. These procedures should be in accordance with the original consent or authorisation.

82. Paragraph 7 provides that information about the management and use of the collection should be made available to the persons concerned and should be regularly updated. This provision aims to facilitate, where appropriate, the exercise of the rights laid down in Article 13, in particular the right to withdraw consent or authorisation at any time and, where available, the possibility to alter the scope of that consent or authorisation.

83. Paragraph 8 sets out the requirement that reports on past and planned activities, including information about access granted to biological materials and progress on research using biological materials, should be made public at least annually. In regard to this provision, “made public” may, for instance, include publishing information on the Internet, holding an information meeting or preparing a brochure or newsletter. In addition, on completion of the research, a summary of findings should be made public.

Article 17 – Individual feedback

84. In paragraph 1 it is stated that clear policies should be in place on feedback concerning findings that are relevant for the health of the persons resulting from the use of their biological materials, including persons who, according to law, are not able to consent. In line with Article 10, paragraph 1, of this Recommendation, the issue of feedback on potential health-related findings should be addressed when consent or authorisation is requested. More specifically, the persons concerned should be informed about whether, and if so, how, feedback on potential health-related findings will be provided.

85. In the context of this Article, the principles of Chapter VIII “Confidentiality and right to information” of the Additional Protocol concerning biomedical research apply.

86. Paragraph 2 sets out that, where feedback is provided, this should take place within a framework of appropriate health care or counselling. For the protection of the persons concerned, proper counselling or other health care assistance may be necessary to explain the nature of the results and the options available to react.

87. The right to know goes hand in hand with respect for the wish of an individual not to be informed about findings that are relevant to their health. Individuals may have their own reasons for not wishing to know certain aspects of their health. A wish of this kind should be observed. Individuals may only wish to exercise their right to know under certain circumstances and such wishes should also be observed. It should be noted that the possible choice not to be re-contacted does not imply a waiver of other rights of the person concerned.

88. The right to know or respect for the wish not to be informed may be restricted in the individual’s own interest or else on the basis of Article 26, paragraph 1 of the Convention on Human Rights

and Biomedicine, for example, in order to protect the rights of another person (e.g., where the information would allow preventive or curative action relating to the health of a minor) or when necessary in a democratic society in the interest of public safety, for the prevention of crime or for the protection of public health. Additionally, the last paragraph of Article 10 of the Convention sets out that in exceptional cases national law may place restrictions on the right to know or respect for the wish not to be informed in the interests of the individual's health.

Article 18 – Access

89. The first paragraph of this Article underlines the importance of appropriate access by researchers to biological materials stored in collections and recommends to member States to take measures to facilitate that access.

90. Paragraph 2 provides that clear conditions governing access to and use of biological materials should be established. These should include possible restrictions defined in that respect by the persons concerned. Such access to and use of biological materials should also be subject to the other conditions included in this Recommendation. These conditions include the requirement set out in Article 23 that, on completion of the research, a report or summary should be submitted to the person and/or institution responsible for the collection that granted access to the biological materials, if applicable.

91. Furthermore, paragraph 3 provides that the principle of transparency should govern the access policy of collections, including their arrangements for oversight of access and transfer procedures.

92. Paragraph 4 emphasises that appropriate access mechanisms should be developed to maximise the value of collections. These access mechanisms should include traceability of the use of the biological materials to which access was granted by the person and/or institution responsible for the collection. With regard to the provisions of this Article, it should be recalled that Article 16, paragraph 8 of this Recommendation provides that reports on past and planned activities, including information about access granted to biological materials, should be made public at least annually.

Article 19 – Transborder flows

93. Paragraph 1 provides that biological materials should only be transferred to another State if an appropriate level of protection is ensured. In compliance with the relevant provisions of the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal Data and its Additional Protocol regarding supervisory authorities and transborder data flows (CETS No. 181, 2001), the required level of protection should be ensured by the law of that State. The appropriateness 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 or set of such transfer operations; particular consideration should be given to the nature of the biological materials, the purpose and duration of the proposed research, the State of origin and State of final destination, the rules of law, both general and sectorial, in force in the receiving State in question and the professional rules and security measures which are complied with in that State.

94. Member States may only consider allowing the transfer of biological materials to a State that does not ensure an appropriate level of protection within the meaning of this Article if appropriate safeguards are present with respect to the protection of the privacy and other rights and fundamental freedoms of the persons concerned and as regards the exercise of the corresponding rights. Such safeguards may in particular be ensured by legally binding and enforceable instruments adopted and implemented by the persons involved in the transfer and further processing.

95. It is stated in paragraph 2 that the transfer of the biological materials should be done under appropriate security and confidentiality conditions. In this regard, it can be recalled that Article 7, paragraph 2 of this Recommendation requires that appropriate safeguards are in place to ensure confidentiality at the time of transfer of biological materials and that Article 16, paragraph

5, requires that quality assurance measures are in place, which should include conditions to ensure appropriate security and confidentiality during transfer of biological materials of the collection.

96. Paragraph 3 specifies that a documented agreement between the sender of the biological materials and the recipient should be signed. In this agreement should be included appropriate consent or authorisation, including, where appropriate, any relevant restriction defined by the person concerned.

Article 20 – Oversight

97. Paragraph 1 states that any proposal to establish a collection of biological materials should be subject to an independent examination of its compliance with the provisions of this Recommendation. Member States may wish to consider such an examination to be an opinion taken into account by other authorities or they could formalise it as resulting in the decision of a competent body.

98. Paragraph 2 provides in particular that each collection of biological materials should be subject to independent oversight. In this regard, it should be noted that, in contrast to the other provisions concerning governance, the oversight is proportionate to the risks involved for the persons whose biological materials are stored in the collection. The extent of the oversight required will depend, for instance, on the size and nature of the collection and on the extent to which the collection grants access to the materials or allows transborder flows. The objective of this oversight is in particular to safeguard the rights and interests of the persons concerned in the context of the activities of the collection.

99. The mechanisms of oversight should include, but are not limited to, the five following elements listed in paragraph 2:

    i. the implementation of security measures and of procedures on access to, and use of, biological materials, as referred to in Article 18 of this Recommendation;
    ii. the publication, at least annually, of reports on past and planned activities, which should include information about access granted to biological materials and progress on research using biological materials, in line with Article 16, paragraph 8;
    iii. the change in the risks to persons whose biological materials are stored in the collection and, where appropriate, revision of policies, including changes with regard to the identifiability of the materials and access granted to the materials;
    iv. the provision of appropriate information to the persons concerned of changes in the management of the collection in order to facilitate, where appropriate, the exercise of the rights laid down in Article 13. This provision refers to the requirement set out in Article 16, paragraph 7;
    v. the development and implementation of feedback policies, including regular review, as referred to in Article 17.

100. Paragraph 2 further calls for the implementation of a system of oversight that is responsive to possible evolutions regarding the collection and its management, taking into account the need to safeguard the interests and rights of the persons concerned in the context of the activities of the collection.

Chapter V – Use of biological materials in a research project

Article 21 – General rule

101. This Article sets out the general rule that biological materials should only be used in a specific research project if the latter is within the scope of the consent or authorisation given by the person concerned. The Article makes a differentiation between the use of identifiable and non-identifiable materials.

102. Regarding the use of identifiable biological materials, it is stated that, if the proposed use in a research project is not within the scope of prior consent or authorisation, if any, given by the person concerned, consent or authorisation to the proposed use should be sought. It is not always foreseeable that biological materials will be used for later research and consent and authorisation of the person concerned might not have been asked for further research use at the time of the removal. In that case, reasonable efforts should be made, both in terms of means and time, to re-contact the person concerned directly, in order to request consent or authorisation. If necessary, alternative methods of provision of information could be utilised, including public advertisements or the use of the Internet (e.g., 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. The wish of the person not to be re-contacted should however be observed.

103. If the measures referred to in paragraph 102 above proved unsuccessful, biological materials may only be used in a research project subject to the independent evaluation of the fulfilment of the four conditions in paragraph 2 *b*. of this Article. The first condition is that evidence is provided that reasonable efforts have been made to contact the person concerned or that legitimate reasons are provided to explain why this could not be done. This provision implies that the body responsible for the independent evaluation will need to be satisfied that such efforts have been made or that the reasons provided for not doing so are legitimate. The second condition is that the research addresses an important scientific interest and is in accordance with the proportionality principle between the risks potentially incurred by the person concerned and the expected benefits of the research. The third condition is that the aims of the research could not reasonably be achieved with biological materials for which consent or authorisation can be obtained. The final condition is that 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 the different systems that may exist at national level.

104. The individual has the right to withdraw his or her consent to the research performed on his or her materials and the right to destruction of the biological materials. In the case where a person withdraws his or her consent and the research has already generated findings, these findings ought to be rendered non-identifiable, 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, the nature of the research, the need for feedback, and the risk for group privacy should therefore be taken into account.

105. Paragraph 3 provides that researchers who envisage a research project on biological materials in an identifiable form should justify this research use in advance in the research protocol.

106. Paragraph 4 specifies that non-identifiable biological materials may be used provided that such use does not violate any restrictions defined by the person concerned before the materials have been rendered non-identifiable, and subject to authorisation provided for by law. It should be noted that with regard to biological materials that are rendered non-identifiable, information on possible restrictions defined by the person concerned are documented and remain associated to these materials.

107. Paragraph 5 sets out the requirement that biological materials from persons who, according to law, are not able to consent may only be used in a research project having the potential to produce, in the absence of direct benefit to the person concerned, benefit to other persons in the same age category or afflicted with the same disease or disorder or having the same condition. It is further required that the aims of the research project could not reasonably be achieved using biological materials from persons able to consent. These requirements are in accordance with the protective principles set out in Article 17 of the Convention on Human Rights and Biomedicine.

Article 22 – Independent review

108. 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, including assessment of the importance of the aim of the research, and its 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.

109. "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.

110. The research project should be submitted for an independent examination of its scientific merit and ethical acceptability in each State in which any research activity is to take place. Best practice is to also submit research projects to an ethics committee in every research location within each State. Although each committee will reach an independent view on the appropriateness of carrying out the research in that particular location, it is acceptable for such committees to endorse the conclusions of one "lead" ethics committee within that State on the science and ethics of the research project.

111. In accordance with the aim of the Convention on Human Rights and Biomedicine, the purpose of the examination of the ethical acceptability of the research project should be to protect the dignity, rights, safety and well-being of the persons whose biological materials are used in a research project. In the framework of the review procedure, the respect for private life of groups or individuals who could be linked to the person from whom the biological material has been removed should also be considered in accordance with Article 5 of this Recommendation.

112. Paragraph 2 sets out the requirement that member States should apply the principles concerning ethics committees contained in Chapter III – "Ethics committee" of the Additional Protocol concerning biomedical research to the review of the research project within the scope of this Recommendation. It is recalled that in accordance with Chapter III of the Additional Protocol, the ethics committee should have a multidisciplinary character, representing an appropriate range of expertise and experience adequately reflecting professional and lay views. In addition, the ethics committee should produce an opinion containing reasons for its conclusion. Further, member States should take measures to assure the independence of the ethics committee. Where members of the ethics committee have a conflict of interest, those members should not participate in the review. Moreover, the ethics committee should be provided with all information necessary for the ethical assessment of the research project, in written form, including information on items contained in the appendix to the Additional Protocol concerning biomedical research, in so far as it is relevant for the research project. Finally, the ethics committee should be satisfied that no undue influence, including that of a financial nature, will be exerted on persons to obtain, store or perform research on their biological materials. In this respect, particular attention should be given to vulnerable or dependent persons.

113. Paragraph 3 provides 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 materials. 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 involved (for example materials whose use may raise particular concern) can also influence the evaluation.

Article 23 – Availability of results

114. Paragraph 1 states that, on completion of the research, researchers should submit a summary or report of the research to the ethics committee or competent body and to the person and/or institution responsible for the collection that granted the use of the biological materials, if applicable. This requirement follows from the accountability in the relationship between the researcher and the ethics committee or competent body, and between the researcher and the person and/or institution responsible for the collection that granted the use of the biological materials, in line with Article 16, paragraph 8.

115. Paragraph 2 sets out the requirement that researchers should take appropriate measures to make public the results of their research. This should be done even if the outcome is negative. Such results should be published or made otherwise available in a manner accessible to other researchers. The aim of the Article is to prevent the needless repetition of research on biological materials due to the non-publication of previous results, and to prevent the suppression of negative or positive results for commercial or other non-scientific reasons. It is provided that this should be done "in reasonable time" so as not to prejudice a patent application or scientific publication. This obligation to publish cannot be restricted by contractual obligations. In this context, reference can be made to Article 26, paragraph 1, of the Convention on Human Rights and Biomedicine. Accordingly, the requirement to publish research results could be waived if they would potentially compromise, for example, public health or safety or the rights and freedoms of others. An example of such research could be that concerning counter-measures to the use of biological weapons, the publication of which could compromise public safety.

116. Research results should be made public with due respect for the right to private life and to the protection of the associated personal data of the persons from whom biological materials have been removed. 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 persons from whom biological materials have been removed 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.

CHAPTER VI – Re-examination of the Recommendation

Article 24 – Re-examination of the Recommendation

117. Article 24 provides for the regular re-examination of the Recommendation, notably in the light of new developments in the field and the experience gained in the implementation of its guidelines.