e-DETECT

Policy for Access to and Sharing of

Biological Samples and Data

1. Introduction

Inherited cardiomyopathies can manifest with symptoms of heart failure but can also remain undetected until life-threatening arrhythmias leading to sudden cardiac death (SCD) occur. In asymptomatic family members, early signs and symptoms can be subtle and may go unnoticed for years. Failure to detect and recognize early signs or symptoms can prove fatal in those unaware of their mutation status or familial predisposition. Therefore, *e*-DETECT aims to:

- increase awareness among family members of patients with inherited cardiac disease, medical professionals and the general public and
- improve early detection of disease signs, enabling risk stratification, prediction of disease and preventing complications including SCD.

A campaign to inform the general public and online tools to evaluate indications for cardiogenetic referral will be launched. The yield of novel methods to reach out to family members will be investigated and if successful, implemented into routine cascade testing. Advanced non-invasive imaging and non-invasive electrophysiological measurements will be performed in mutation carriers and asymptomatic family members to detect early signs of cardiac disease, with special attention to sex differences. As exemplar for all inherited cardiomyopathies, early detection at individual and cellular level will focus on patients and their family members with PLN or PKP2 gene founder mutations. Early detection facilitates risk stratification and timely therapeutic interventions, thereby reducing mortality and morbidity. A national infrastructure will be developed to facilitate biomarker discovery and follow-up research. Extensive genetic and phenotypic (including imaging) data will be stored and integrated into a central data warehouse to facilitate data sharing and guarantee long-term sustainability of the registries. As such, *e*-DETECT will help in the prevention of cardiac dysfunction and SCD among young, apparently healthy individuals. By 2030, the consortium aims to increase the uptake of cascade testing in family members by 50% and thereby detect up to 25% more patients at true risk. This increased uptake will enable regular follow up and timely treatment, thereby reducing morbidity and mortality.

e-DETECT will encourage and expedite effective and ethical access to samples and/or data from this consortium, preferably in the context of high-level research collaboration between providers (e.g. registries with their biobanks, including scientists and physicians who contributed to these registries and biobanks) and requesters.

At the start of this project, three partners collaborate in *e*-DETECT:

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This access policy presents three areas of guidance:
i) ethical principles;
ii) governance procedures; and
iii) practical procedures for access.

Together with existing legal frameworks, these three areas provide the ethical and legal framework and practical procedures to guide access to and use of biological samples and associated data. This policy is a binding document for requesters, who are seeking access to samples/data from *e*-DETECT.

2. Definition of Terms

Samples/Data

Biological samples or data stored in, and under stewardship of, one of the individual registries collaborating in *e*-DETECT, as well as data derived through the use of the requestor.

Consortium Partner

Parties participating in the *e*-DETECT consortium as mentioned in the granted proposal for *e*-DETECT.

Requester

A qualified person requesting samples/data. Needs to be registered as specified in Step-1 and -2 of paragraph 6.

Bona Fide Researcher

A researcher with:
1. an intention to generate new knowledge and understanding using rigorous scientific methods;
2. an intention to publish the research findings and share the derived data in the scientific community, without restrictions and with minimal delay, for wider scientific and eventual public benefit; and where
3. the intended activities are not inconsistent with legal and ethical requirements or widely recognised good research practice; and
4. they have a bona fide research project: in practical terms, a research project or proposal that has been approved by a recognised funder, or a researcher that belongs to a research

organisation that has the capability to lead or participate in high quality, ethical research should normally be considered bona fide.

Provider

A *e*-DETECT Consortium Partner providing samples/data.

MTA

A contract between the requester and the *e*-DETECT Consortium specifying conditions under which the biological material and/or data are transferred to a recipient. A data-only transfer agreement is sometimes called a Data Transfer Agreement (DTA) or Data Access Agreement (DAA).

Project Outcome

Can be published in the form research papers, patents, new therapies and other types of commonly acknowledged medical research achievements. This also includes a report on the use of samples and/or data.

Personal Data

'Personal data' means any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person (GDPR Article 4.1).

Pseudonymisation

'Pseudonymisation' means the processing of personal data in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person (GDPR Article 4.5).

Human Biological Samples

Constituent parts of the human body, or human biological material, including organs and parts of organs, cells and tissues, and body fluids.

Data and Sample Access Committee (DSAC)

An independent committee with the mandate to review all data and sample access applications to the *e*-DETECT Consortium. It is composed by one representative of each *e*-DETECT Consortium Partner. The DSAC will have to decide unanimously on access requests. See attachment 1 for the composition of the DSAC.

3. Legal Premise

All proceedings related to access and sharing must be compliant with national and European legislation such as the Directive 95/46/EC and, as of 28 May 2018, the EU General Data Protection Regulation and a Code of Conduct (GDPR Article 40). It is the national legislation that applies to the data controller responsible for a biorepository, a registry, or a collection of personal data which, in turn, applies to the processing of samples and data, irrespective of where the samples and data are used. The processing of data and the use of biological samples must be compliant with the provisions of the informed consent form and/or decision of an ethical review board, and/or a data protection authority/officer if applicable. If none of the above is applicable, it must be compliant with national legislation.

4. Governing Ethical Principles

e-DETECT will facilitate and support access to samples and data according to the following principles:

1. Scientific integrity:
   Requesters and providers are expected to act in an honest, transparent, equitable manner and uphold the highest standards of quality in scientific research.
2. Responsibility and accountability:
   It is both the requesters' and providers' responsibility to ensure that they have read and understood the relevant policies and procedures and that they act in accordance with them.
3. Respect for responsible governance regarding data and research:
   Requesters and providers are expected to take the necessary precautions and safeguards to avoid subjects' privacy breaches. This entails protecting their personal data and putting in place state-of-the-art safety measures for data security.
4. Respectful use of limited resources:
   Request for access to biological samples of a limited nature will be granted particularly sparingly. Requesters are expected to request only as much as is required and to obtain results that cannot be effectively achieved otherwise.
5. Accessibility to research results:
   Requesters should be willing to make their research results accessible for academic purposes on a royalty-free basis and in a timely manner.
6. Attribution:
   The intellectual investment of investigators involved in the creation of data registries and bio-repositories is often substantial, and should be acknowledged. This should be specified in Material and Data Transfer Agreements (MTA/DTA) signed by both parties.
7. Respect for intellectual property:
   Sharing of data and biological samples needs to be performed in a way that protects intellectual property rights of the parties involved. It also needs to address the requirements of institutions and third-party funders.
8. Equity and inclusivity of users:
   Bona fide researchers who meet the relevant criteria should be granted access based on fair and non-discriminatory terms.
9. Reciprocity:
   Stewardship also implies giving something back. Feedback regarding general results should be channeled towards institutions and patients.

10. Confidentiality:
    e-DETECT shall treat all the access requests confidentially and will not use them for any purpose other than assessing the availability of the samples/data and access provisions.

5. Procedures Governing Access to and Use of Samples/Data

A. The samples/data remain under the stewardship of the *e*-DETECT Consortium Partner as the original source, unless otherwise specified under a separate agreement. Consequently, *e*-DETECT Consortium only facilitates access, while the *e*-DETECT Consortium Partners actually grant and provide access. Access should be based on requests for specified research projects.
B. The quality of data and biological samples shall be ensured by the provider.
C. The requester needs to ascertain that the samples and data provided are stored in a secure storage and operation facility accompanied by an appropriate access policy, including a description of who can access the facility, the time-period the samples/data will or need to be stored, and concrete steps for sharing samples/data.
D. Material Transfer Agreements (MTAs), Data Transfer Agreements (DTAs) or Data Access Agreements (DAAs) should always be used to govern transfer between parties.
E. Samples/data can only be used for academic or industrial research purposes, depending on the legislation of the Member State or international organisation: The usage and limitations need to be specified in an MTA/DTA between the requester and the *e*-DETECT Consortium Partner.
F. All projects using identifiable human biological materials and derived data (beyond the original project for which samples/data were initially collected and provided) are subject to the overarching principle above, i.e., they must also be evaluated by an appropriate and legitimate ethical review board.
G. The entity which provides biological samples or personal data shall explicitly document any restriction of use or obligation applicable to these biological samples or data (e.g., the limited scope of purpose imposed by the consent form, the obligation to report incidental findings, publication restrictions such as non-discrimination clauses, etc.).
H. Requests for access to samples/data issued by requesters will be required to follow the request procedure for samples/data via the *e*-DETECT portal (Section 6).
I. In order to maximise the value, *e*-DETECT requests that provenance data as well as data derived from samples/data are transferred back to the respective *e*-DETECT Consortium free of charge (so-called 'return of data').
J. Access will be cost-neutral for requesters. It maybe that the *e*-DETECT Consortium requires the requesters to partially or fully cover the costs incurred in providing samples and/or data. Cost aspects must be regulated in the MTA/DTA between the requester and the *e*-DETECT Consortium.

6. Request Procedure for Access to Samples/Data via BBMRI-ERIC IT Services

The basic framework governing the request procedure for accessing samples/data via the *e*-DETECT portal comprises the following steps.

Step 1: Registration of requester
    e-DETECT verifies the identity of each requester and his/her institutional affiliation (employee status).

Step 2: Request of samples/data

A requester files a request for access to samples/data via the *e*-DETECT portal. The digital form must be filled in. Each request includes information about the approved/proposed research project including its ethical approval status, expected properties of and amount of samples/data and their anticipated use. Data and Sample Access Committee (DSAC) may either request refinement of the request. In compliance with the governing ethical principles in paragraph 4.10, the request is treated as confidential by the DSAC, i.e., it will not be disclosed to other providers. Providers will not use requests for any other purpose than assessing the availability of the requested samples/data and providing offers.

Step 3: Access control & samples/data delivery

After receiving feedback from the DSAC, the requester follows up directly with the DSAC in order to provide any additional information needed to assess whether access can be granted. As part of this process, the DSAC must comply with the regulatory and ethical conditions (e.g., data protection regulations, assessment of compliance of informed consent with the approved/proposed project, checking whether the amount of deployable/extraditable samples required is scientifically justified) and transfer liability to the requester by using MTAs/DTAs as deemed appropriate. The DSAC has to decide unanimously whether samples/data are released for the project requested. Similarly, access to deliverable/extraditable samples may be subject to prioritization. For approved requests, the MTA/DTA will need to be executed and access charges paid before samples/data are released to the requester.

Step 4: Return of results

e-DETECT requests that provenance data as well as data derived from samples/data are transferred back to the *e*-DETECT Consortium free of charge (so-called 'return of data').

Step 5: Request completion notification

For each request obtained via the *e*-DETECT portal, where Step 3 has been completed, the DSAC needs to be informed whether the request has been completed successfully (whether samples and/or data were provided to the requester and/or whether Step-4 was also completed), or whether it failed. In case a request fails, reasons for failure have to be specified.

Attachment 1 Composition of Data and Sample Access Committee (DSAC)

J.P. van Tintelen	Receives all data/ samples requests	Chair of DSAC	j.p.vantintelen-2@umcutrecht.nl
F.W. Asselbergs	Review data/sample request	Member DSAC	F.W.Asselbergs@umcutrecht.nl
P. Loh	Review data/sample request	Member DSAC	P.Loh@umcutrecht.nl
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A.A. Wilde	Review data/sample request when combined with PLN	Member DSAC	a.a.wilde@amsterdamumc.nl
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