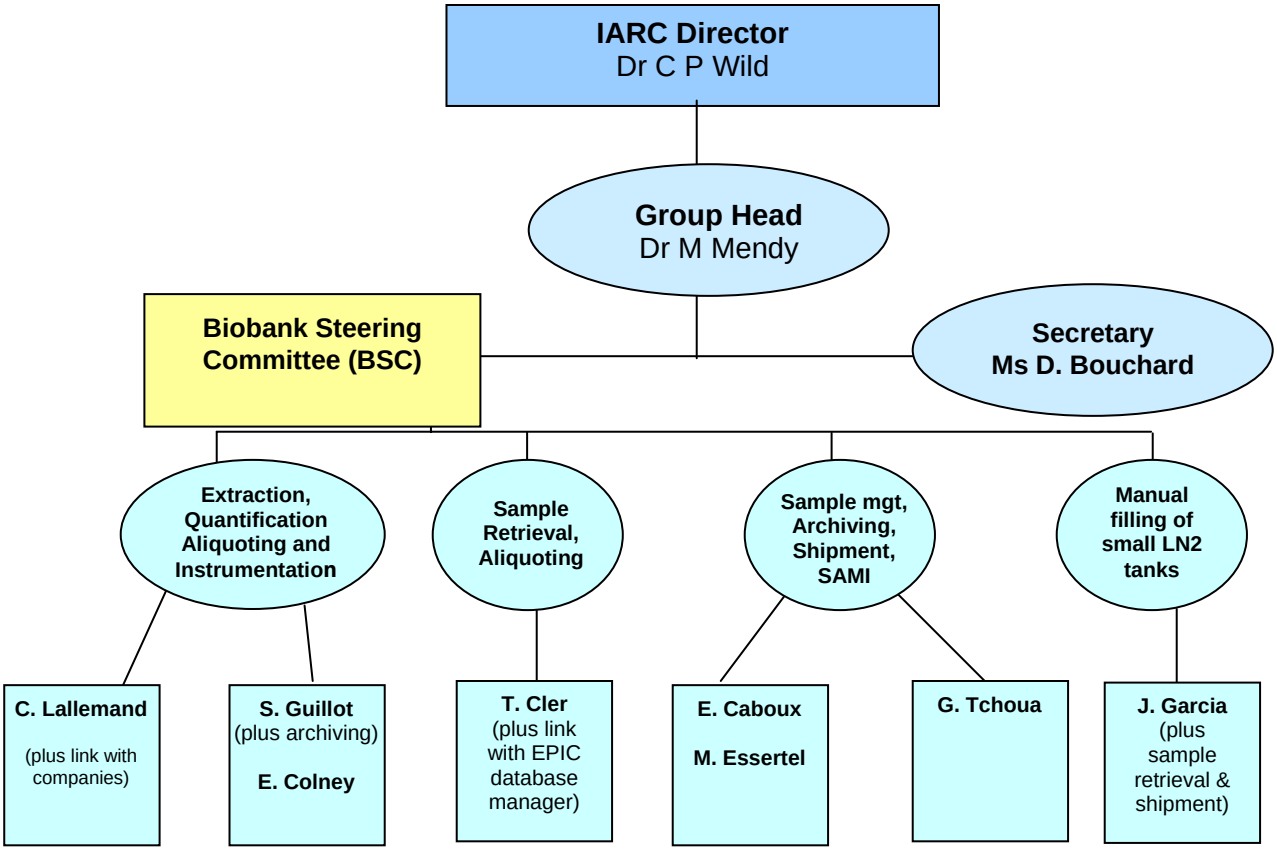
International Agency for Research on Cancer

World Health Organization

IARC Biobank

Standard Operating Procedures

Organizational structure of IARC Biobank



SOP 01

(Version 1)

Reception of biological samples

1. Abbreviations

BRC	IARC Biobank
PI	Principal Investigator
EPIC	European Prospective Investigation into Cancer and nutrition

2. Introduction

The IARC Biobank stores sample collections of diverse type from studies conducted world-wide by scientists at IARC in collaboration with international partners. Samples are shipped to IARC from the collection sites for research at IARC, distribution to other collaborating centers or/and for long-term storage.

3. Objectives

3.1. To receive packages containing biological samples with or without refrigerant (dry-ice, ice.)

3.2. To prepare an inventory of biological samples received and to check if the content is in accordance with the list received

IARC, 150 Cours Albert Thomas, 69372 Lyon CEDEX 08, France - Tel: +33 (0)4 72 73 84 85 - Fax: +33 (0)4 72 73 85 75

3.3. To provide information on the status of the biological samples at arrival and to report the status of the consignment to the sender.

4. Scope

The SOP applies to all Biobank staff responsible for sample reception and sample management.

5. Protocol

5.1. Open the package with care.

5.2. Retrieve the documentation accompanying the package

5.3. Discard the packaging material and remove the refrigerant if necessary (ice thawing or dry-ice sublimation)

5.4. Remove the boxes containing biological samples and immediately transfer the biological samples into freezers or fridges (-80°C, -40°C, -20°C or +4°C) depending on the stipulated optimal condition.

5.5. Clean the bench with a disinfectant (Bactinyl).

5.6. Keep the biological samples in freezers/fridges for a minimum of 24 hours prior to obtaining the shipment inventory in order to allow for temperature stabilization.

5.7. Report the arrival of the biological samples to the sender and notify of any problems that may have occurred during the transportation

5.8. 24 hours following sample reception, obtain an inventory of the package content and check the concordance between the sample received and the list provided.

5.9. Send feedback to sender and report any discordance within 4-7 days of sample reception.

5.10. Obtain all relevant documentation from the IARC based PI

a. copy of informed consent

b. completed sample deposition request form (LSB 005)

5.11. Complete all documentation related to the reception of biological samples

5.12. Archive the sample by entering data in the informatics management system (SAMI): see SOP 6

6. Quality control

6.1. Obtain and archive all records and information related to the reception of biological samples

6.2. Report problems at reception to the shipper within 4-7 days of samples arriving at IARC.

6.3. To keep the most appropriate temperature during all the reception process

6.4. Temporary and definitive storage of biological samples at the most appropriate temperature.

Revised September 2011

SOP 2

(Version 1)

Retrieval of biological samples

1. Abbreviations

EPIC European Prospective into Cancer and nutrition

2. Introduction

The IARC biological Resources Centre stores sample collections of diverse type from studies conducted world-wide by scientists at IARC in collaboration with international partners. IARC is also the custodian of samples from over 500,000 individuals collected for the EPIC study.

Samples are shipped to IARC from the collection sites for research at IARC, distribution to other collaborating centers or/and for long-term storage. EPIC samples have been in IARC's archive since the early 1999's and the role of IARC is also to organize the redistribution of these samples to collaborators for the different EPIC-based research projects. This requires the retrieval aliquoting and shipment of plasma, serum, red blood cells and Buffy coat for DNA extraction.

3. Objectives

3.1. To retrieve biological samples from liquid nitrogen tanks or freezers

3.2. To prepare samples batches for analyses or shipment

IARC, 150 Cours Albert Thomas, 69372 Lyon CEDEX 08, France - Tel: +33 (0)4 72 73 84 85 - Fax: +33 (0)4 72 73 85 75

4. Scope

The SOP applies to all Biobank staff responsible for sample reception and sample management.

5. Protocol

5.1. Prepare refrigerant material (liquid nitrogen or dry ice)

5.2. Place boxes or goblets necessary for storing selected biological samples on refrigerant material

5.3. Localize the rack or the canister inside the liquid nitrogen tank or freezer and retrieve it

5.4. Localize the box or the goblet inside the rack or the canister and retrieve it.

5.5. Localize the tube or the straw and retrieve it.

5.6. Check the concordance between the identification number mentioned on the tube and the number indicated on the work-list.

5.7. Put the tube or the straw in the appropriate container (box or goblet)

5.8. Store in a temporary storage before analysis or shipment

5.9. Clean the bench with a disinfectant (Bactinyl).

5.10. Update the informatics management system

6. Quality control

6.1. To ensure the appropriate temperature during all the retrieval procedure

6.2. To perform independent random checks on samples retrieved and confirm that the number of samples retrieved tallies with the work list

6.3. To ensure the update of the informatics data

Revised September 2011

SOP 3

(Version 1)

Aliquoting of biological samples

1. Objectives

1.1. To make aliquots from primary biological samples

1.2. To identify each aliquot

2. Protocol

2.1. Thaw the biological samples under a Safety Cabinet, level II.

2.2. Prepare and identify empty tubes for each aliquot with specific labels dedicated to storage at low or ultra-low temperature

2.3. Adjust the pipette with the appropriate volume

2.4. Transfer the volume of biological sample into the empty tube by using one tip per sample

2.5. Clean the bench with a disinfectant (Bactinyl)

2.6. Update the informatics management system

3. Quality control

3.1. Clear and detailed identification with printed labels (barcodes)

3.2. Prevention against contamination between biological samples (use of disposable tips)

3.3. To count the number of samples retrieved and to compare with the expected number of samples

3.4 To check the volume of the pipette before the first aliquot and after the last one

Revised September 2011

IARC, 150 Cours Albert Thomas, 69372 Lyon CEDEX 08, France - Tel: +33 (0)4 72 73 84 85 - Fax: +33 (0)4 72 73 85 75

SOP 4

Version 1

Shipment of biological samples

1. Abbreviation

IATA	International Air Transport Association
FIPA	FedEx International Priority Alert service
DGR	Dangerous Goods Regulations

2. Introduction

IARC has many research activities involving worldwide collaborations. This requires exchange of biological samples. Shipments of biological samples are done according strict international regulations for air transport. Before shipping any biological material from IARC, the possible presence of infectious agents must be evaluate. According to IATA regulations specimens can be classified as follows:

(i) Infectious material, category A or B

(ii) Exempt specimens

(iii) Material that is not subject to the “Dangerous Goods Regulations”

Category A materials are extremely dangerous goods that are not handled by IARC researchers. However this is not the case for Category B materials. Regarding the “Exempt specimens”, only a few goods falling into this group are normally shipped from IARC, e.g. urine samples. Substances that are not subject to DGR are, for example, specimens treated with procedures that

IARC, 150 Cours Albert Thomas, 69372 Lyon CEDEX 08, France - Tel: +33 (0)4 72 73 84 85 - Fax: +33 (0)4 72 73 85 75

completely inactivate the infectious agents (formalin-fixed tissue) or biological samples that dot not contain any infectious agents.

3. Objectives

3.1. To send selected biological samples to research collaborators world-wide

3.2. To prepare the list of the package content

3.3. To follow international regulations of air transport (IATA)

4. Scope

The SOP applies to all Biobank staff responsible who have received IATA training and are responsible for sample shipment.

5. Protocol

5.1. Prepare the biological samples to send

5.2. Follow the internal IARC procedure for shipment of biological samples (http://intranet.iarc.fr/INTRANET/GENERAL_INFOS/RESOURCES/archivesresource.php)

5.3. Put biological samples in leak-proof bags with sufficient quantity of absorbent material (able to absorb all liquid content)

5.4. Put leak-proof bags in a specific isotherm box

5.5. Add dry-ice or stuffing material if necessary

5.6. Place the list of content and a confirmation of receipt form inside the box

5.7. Close the box

5.8. Check information outside the box (shipper and consignee addresses, responsible name and contact details, biological samples labeling, dry-ice labeling and quantity if necessary…)

5.9. Contact the transport company for pick-up (for critical samples sent with FedEx, use FedEx International Priority Alert service)

5.10. Update the informatics management system

6. Quality control

6.1. To ensure the appropriate storage temperature during all the transport

6.2. To follow international regulations for air transport and IARC procedure

6.3. To ensure the correct routine of the package

6.4. To be sure to obtain a confirmation of reception as well as a notification of any problems during transport.

Revised September 2011

IARC, 150 Cours Albert Thomas, 69372 Lyon CEDEX 08, France - Tel: +33 (0)4 72 73 84 85 - Fax: +33 (0)4 72 73 85 75

LSB 005

Version 1

Samples deposition Form

Introduction

The IARC biological Resources Centre stores sample collections of diverse type from studies conducted world-wide by scientists at IARC in collaboration with international partners. Samples are shipped to IARC from the collection sites for research at IARC and then for storage.

The purpose of this form is to provide information on sample being deposited for storage and/pre-processing at IARC and for possible redistribution to collaborators.

IARC, 150 Cours Albert Thomas, 69372 Lyon CEDEX 08, France - Tel: +33 (0)4 72 73 84 85 - Fax: +33 (0)4 72 73 85 75

International Agency for Research on Cancer
World Health Organization

IARC Biobank
http://ibb.iarc.fr

Data on in-coming samples

(Sample list should submitted with the samples and the completed request form)

1.1. Name of the study: ……

1.2. Name of the Principal Investigator: ……..

1.3. Name of the sample manager or contact person: ……..

1.4. Sample Type: ……..……..

1.5. Total (Number): ……..

1.6. Origin (Country):……..

1.7. Study site……

1.8. Brief description of the study……

……..

……..

……..

1.9. Date of deposition: ……..

1.10. Storage conditions: ……..

1.11. Active project ……Yes ☐

……No ☐

1.12. For archive? ……Yes ☐

……No ☐

1.13. For redistribution? ……Yes ☐

……No ☐

1.14. For processing? ……Yes ☐

……No ☐

If yes, please provide detail……

……

1.15. Informed consent documentation available …… Yes ☐

……. No ☐

1.16. Copy of informed consent provided …….. Yes ☐

…… No ☐

Revised September 2011

IARC, 150 Cours Albert Thomas, 69372 Lyon CEDEX 08, France - Tel: +33 (0)4 72 73 84 85 - Fax: +33 (0)4 72 73 85 75