Guidelines for Preparing and Submitting Samples for Library Prep and Premade Libraries for Pooling to the Oxford Genomics Centre

There are a series of basic steps to follow to ensure safe delivery of samples and timely initiation of your project. This guideline will walk you through these steps and direct you to the appropriate documents to read for your particular project needs.

⚠️ Failure to follow these guidelines and incorrect submission of samples will:

1. Delay the initiation of your project
2. Put your samples at risk
3. Result in additional charges being applied to your project

If in doubt please consult your project manager.

Sample Submission Overview

The schematic below is designed to give you an overview of the steps that you are required to take to ensure the necessary amount of material is provided in the correct container, at the right temperature and with all the required paperwork. Further details are in the numbered sections below. Following these guidelines will protect your samples, avoid delays in projects initiation and prevent additional charges for processing.
1. **Sample QC Guidelines**

To ensure successful preparation of libraries a set of guidelines have been prepared that describe the minimum amount and quality of material required.

- RNA Sample QC Guidelines
- ChIP Sample QC Guidelines
- DNA Sample QC Guidelines
- Pre-prepared Libraries QC

These guidelines can be found on our website [http://www.well.ox.ac.uk/ogc/documents](http://www.well.ox.ac.uk/ogc/documents)

2. **Place Samples in Plate**

![Warning sign](image)

*We will only* accept samples and libraries that are to be pooled by us in plates. *If the samples are in the wrong containers, we reserve the right to return at your cost or to charge a processing fee.*

Please use this checklist to ensure that samples and plates are correctly packaged. Many of these details can also be found in our handy video guides [http://www.well.ox.ac.uk/ogc/video-sample-submission-best-practice/](http://www.well.ox.ac.uk/ogc/video-sample-submission-best-practice/)

1. **Correct plates and seals:** Plates and seals are of variable quality, some seals do not stick to plates properly and can allow contamination of samples. To avoid the seal from lifting and resulting contamination, please use fully skirted, clear plastic, 96-well plates (ThermoFisher Thermo-Fast 96 Skirted plates, catalogue #AB-0800 or 4Titude FrameStar® 96 Well Skirted PCR Plates # 4ti-0960) sealed with an adhesive seal (Thermo Scientific Adhesive PCR Seals #AB-0558).

2. **Plate layout:** The overall plate layout should be in columns A1-H1, A2-H2 etc. with no gaps between samples. Samples that are to be multiplexed should be grouped and assembled on a plate so that samples in a given multiplex are in consecutive wells. If you are multiplexing different sample types, please discuss this with your project manager.

### 96-well plate layout

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3. **Seal the plate thoroughly**: Please make sure the plates are sealed properly to minimize contamination, we recommend using a pen lid or credit card to apply pressure between each line of wells. Note that applying a seal to a cold surface will result in the seal lifting.

4. **Label appropriately**: The sealed container or sample plate must be labeled with your name and quote or project number.

5. **Protect from dry ice**: Plates should be placed within a plastic bag before putting on dry ice or into the freezer to stop the plate seal from becoming brittle and lifting.

Only one aliquot of each sample should be submitted unless by prior arrangement.

### 3. **Complete the Appropriate Paper Work**

**Before** shipping / delivery of samples

**STEP 1**
Sign your quotation and return via email along with a grant code (if within the WTCHG) or a PO number (if external). If outside the University of Oxford please provide a PDF copy of the PO.

**STEP 2**
Complete the sample submission form ensuring that the label on your plate(s) exactly matches the entry in the submission form.
Email the completed form to your project manager, at least two days before shipping your samples.

**STEP 3**
Wait for confirmation of receipt before shipping samples. Your project manager will
assign you a project number. Please label plates and packaging with this number and then ship accordingly following the instructions below.

Samples received unexpectedly, poorly labeled or without correct paperwork will delay the initiation of your project, risk the safety of your samples and incur additional charges.

4. **Package**

1. All RNA samples should be on dry ice.
2. All DNA samples or libraries should be on dry ice if being shipped or if to be left in WTCHG reception area.

5. **Deliver or Ship samples**

**Submitting Samples for those with Access to WTCHG Lab 3 Freezers**

When dropping off your samples

1. There is a designated freezer for sample drop off. The freezer is located in the first bay on the south side of Lab 3. A plan of Lab 3 and the location of the freezer can be seen in Appendix 1.
2. Samples should be left in this designated area between 10am and 2pm on standard working days.

This freezer will not be checked other than between these times so we recommend only to leave samples between 10am and 2pm in order that your samples are not lost or defrosted if the freezer is opened or fails after this time.
3. The labeled plate or box/bag of tubes should be placed in appropriate drawer; either the one for DNA or the one for pre-prepared libraries.
4. On top of the freezer there is an area in which to leave RNA samples on dry ice.

After 2pm, nobody will return to check for samples until the following working day. If you are unable to drop off your samples between 10am and 2pm, please arrange for a colleague to do so or wait until the following working day.

**Submitting Samples- drop-off point in WTCHG reception**
1. It will be possible to leave samples in a cupboard in reception (see image below) between 10am and 12pm on any working day - this area is not secure and will become warm, please put all samples on dry ice.

2. After 12pm, nobody will return to check for samples until the following working day.

3. If you are unable to ship or drop off your samples in this time slot, please wait until the next working day or ask a colleague to send the samples in your absence.

**Submitting Samples - shipping samples**

1. Samples should only be shipped between Monday and Wednesday (or 2 working days before the start of the weekend in the case of bank holidays).

2. All samples should be on dry ice. Some couriers have specific guidelines for shipping samples on dry ice and should be contacted for details prior to packaging up your samples.

3. Please send to:

   High-Throughput Genomics (Sequencing),
   Wellcome Trust Centre for Human Genetics,
   Roosevelt Drive,
   Oxford.
   OX3 7BN
Appendix 1

![Diagram of Laboratory 3 with Lab 3 entrance and Submission freezer marked]