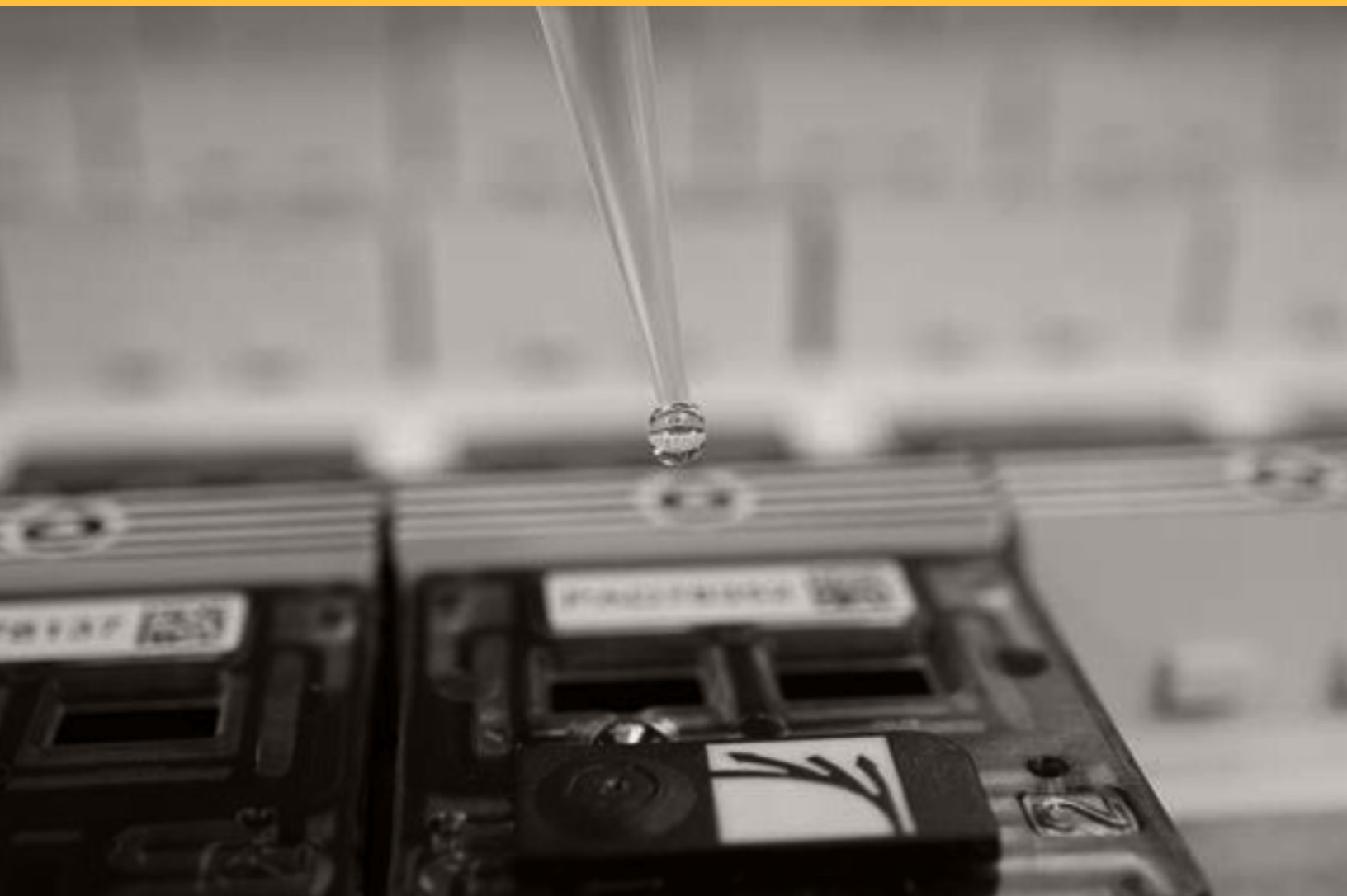




CANADA'S MICHAEL SMITH
GENOME SCIENCES CENTRE

From Nobel roots.

BODILY FLUIDS



USER GUIDE

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ABOUT US

Our **CAP**, **DAP**, **ISO 15189**, and **ISO 27001** certified technology platform is a high-throughput, large-scale DNA and RNA sequencing and analysis facility that has been designed to maximize analytical capacity, diversity, efficiency, scalability and flexibility.

Our state-of-the-art clinical, sequencing, bioinformatics, and proteomics platforms are ready to be put to use for your research or clinic.

We partner with researchers, guide experimental design, execute high quality processing of complex and valuable biological samples and provide extensive bioinformatics analyses with the aim of making genomics research accessible to our partners and collaborators within the scientific community.

Please feel free to contact us at SOW@bcgsc.ca if you have any questions about the services we provide.

ABOUT THIS GUIDE

This user guide describes requirements and recommendations for the preparation and submission of **bodily fluids**.

The recommended starting materials and amounts described in this guide work well for human or mouse derived nucleic acids. *For best results, please submit the recommended amount of starting material or more.*

If working with other organisms, please file a **Collaborative Services Inquiry** at <https://bcgsc.ca/services/collaborative-services-inquiries>.

If you are submitting a different sample type, please refer to the other user guides at bcgsc.ca/services.

CONTACTS

Submissions

GSC_submissions@bcgsc.ca

Statements of Work

SOW@bcgsc.ca

Data Support and Access

data_support@bcgsc.ca

Shipping

GSC_submissions@bcgsc.ca

General

info@bcgsc.ca



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1. SAMPLE PROTOCOLS

1.1. TERMS USED

FFPE formalin-fixed paraffin-embedded

HMW high molecular weight

TNA total nucleic acid

1.2. ACCEPTABLE SAMPLE TYPES

We accept a variety of samples for TNA extraction and sequencing including **blood**, **fresh frozen tissues**, **FFPE tissues**, **saliva and buccal (cheek) swabs**.

1.3. SUBMISSION REQUIREMENTS

starting material	recommended amount	preparation
GENOME		
blood	1 mL mammalian whole blood	Whole blood samples are best collected fresh in Streck tubes to limit cellular degradation during storage and shipping. If cell-free DNA is not required then peripheral blood can be collected in EDTA tubes. Store in a refrigerator temporarily pending prompt shipping on cold packs. EDTA blood samples can also be frozen and stored at -80°C. Frozen samples should be shipped on dry ice.
TRANSCRIPTOME		
blood	2.5 mL mammalian whole blood	Samples should be collected in PAXgene RNA tubes or equivalent. The additive in PAXgene Blood RNA tubes stabilizes intracellular RNA. Store at -80°C. Frozen samples should be shipped on dry ice.
GENOME or TRANSCRIPTOME		
buffy coat	0.5 mL buffy coat in 2 mL cryovials	—
GENOME or TRANSCRIPTOME		
saliva	~2 mL saliva (Oragene kit ¹)	Saliva samples (~2 mL) should be collected in Oragene kit ¹ collection tubes following the detailed instructions in the kit. Eating, drinking or smoking should be avoided for at least 1 hour before saliva collection.
GENOME or TRANSCRIPTOME		
plasma	6 mL plasma in 10 mL Capitol vials ¹	Blood samples for plasma fractionation should be collected in Streck (or similar) collection tubes. Isolated plasma (~2 to 6 mL) should be shipped in 10 mL leak proof vials.

¹ or similar



2. SUBMITTING FOR SPECIFIC PLATFORMS

2.1. NANOPORE OR PACBIO

Below are requirements for submitting samples for **High Molecular Weight** (HMW) DNA extraction for sequencing on the **Oxford Nanopore Technologies (ONT)** or **Pacific Biosciences (PacBio)** platforms.

starting material	recommended amount	preparation
GENOME or TRANSCRIPTOME		
blood	2 mL mammalian blood ¹	Samples should be collected fresh with EDTA as anticoagulant. We prefer to receive fresh blood samples shipped over night on cold packs; these samples should be stored in a refrigerator temporarily. Blood samples can also be flash frozen and stored at -80°C. Frozen samples should be shipped on dry ice.

¹ required for HMW DNA isolation



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3. ONLINE SAMPLE SUBMISSION

Refer to [Introduction to Our Collaborative Services guide](#) for instructions on using the [Online Sample Submission System](#). We recommend that you fully review this guide to working with us before initiating your submission.

The online sample submission form must be completed and approved prior to submitting your samples to the GSC.

If you have any questions, contact us at GSC_Submissions@bcgsc.ca.



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4. SAMPLE SHIPPING AND DROP-OFF

Before shipping your sample, please make sure that your sample submission form has been reviewed and approved.

4.1. DRY ICE SHIPPING REQUIREMENTS

If shipping samples on dry ice, please adhere to the requirements listed below.

DO NOT FULLY SEAL	USE ENOUGH DRY ICE	AFFIX UN1845 LABEL
For safety, dry ice must never be sealed in a container with an airtight seal. A typical shipping container is an internal foam box with cardboard box exterior. To allow sublimating CO₂ to vent, DO NOT completely tape the Styrofoam top or the box top.	Samples must be shipped with a minimum of 10 lbs (4.54 kg) of dry ice. Dry ice sublimates at rate of 5–10 lbs per 24 hours. If you anticipate any delays during shipping (more than 24 hours), ensure that there is enough dry ice to sample integrity.	To comply with dangerous goods regulations, the outermost container must be labeled with a hazard class 9 label (UN1845), and a net weight of dry ice (in kilograms). 



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4.2. SAMPLE SUBMISSION BY COURIER

4.2.1. BEFORE SHIPPING

Before shipping your sample, please make sure that your sample submission form has been reviewed and approved.

4.2.2. WHERE TO SHIP

We recommend shipping Monday to Wednesday — we cannot accept packages on weekends.

Once your sample submission form is reviewed and approved, ship your samples to:

Dr. Andrew Mungall
Biospecimen Core, Room 508
Canada's Michael Smith Genome Sciences Centre
100 – 570 West 7th Avenue
Vancouver BC V5Z 1B3 Canada

email: amungall@bcgsc.ca

tel: 604-707-5900 ext. 675411

4.2.3. AFTER SHIPPING

Once samples have been shipped, please notify us of your shipment by email to

GSC_Submissions@bcgsc.ca.

Make sure to include the shipment tracking number so we can monitor the progress during transit.

4.3. SAMPLE SUBMISSION BY DROP-OFF

4.3.1. BEFORE DROPPING OFF

Before dropping off your sample, please make sure that your sample submission form has been reviewed and approved.

When you are on your way to us with the sample, please email us at GSC_Submissions@bcgsc.ca so that we know when to expect you.

4.3.2. SAMPLE DROP-OFF AND PLATE PICKUP HOURS

9:30 – 11:30 am & 1:30 – 3:30 pm

Monday – Friday

4.3.3. ADDRESS

Canada's Michael Smith Genome Sciences Centre
100 – 570 West 7th Avenue
Vancouver BC V5Z 1B3 Canada

Once you arrive at our location, please call our office directly at **604-707-5900** ext. **675411**.



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