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Protocol status: Working
We use this protocol and it's working

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OMS Atlas OCT Spatial Mapping - Limited

Forked from OMS Atlas OCT Spatial Mapping

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OMS Atlas

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ABSTRACT

This protocol describes the procedure by which the OMS Atlas serially sections an OCT block, prepares the resulting slides and samples, and then distributes the specimens for downstream analysis.

MATERIALS

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Superfrost Plus Microscope Slides **Fischer Scientific Catalog #12-550-15**

Additional equipment:

- Cryostat

BEFORE START INSTRUCTIONS

Transfer OCT blocks to OHSU Knight Histopathology Shared Resource (HSR) for sectioning and processing.

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Preparation

1 Verify the identity of the OCT block to be cut against written request for sectioning.

2 Remove OCT block from -80 °C freezer and acclimate to cryostat (-20 °C) for minimum of 03:00:00 .

3 Label all slides and cryotubes with a unique BEMS ID and Part#, corresponding to the written request and OCT spatial map (below).

	A	B	C	D	E
	Part#	Description	Thickness	Assay	Recipient
	1	Superfrost Plus slide	5µm	H&E	OHSU, HSR
	2	Superfrost Plus slide	5µm	Cyclic Immunofluorescence (Tumor Panel)	HMS, Alyce Chen
	3	Superfrost Plus slide	5µm	Cyclic Immunofluorescence (Tumor Panel)	HMS, Alyce Chen
	4	Remainder of OCT block	NA	Single Cell Indexing ATAC Sequencing	OHSU, Andrew Adey

Sectioning

4 Affix OCT block to cryostat chuck.

5 Orient and face block to get adequate amount of core.
Note: Avoid excessive facing to reduce tissue loss.

6 Set cryostat to 5 micron sections.
Note: All sections cut from here on should be sequential. The serial order, adjacency, and consistent orientation of the sections are all important factors. Please note any deviations from the protocol.

7 Cut three sections at 5 microns (Part#1-3) and affix onto appropriately labeled slide according to OCT spatial map (step #3 above).

8 Place all slides and remaining OCT block in -80 °C freezer.
Note: No slides are to be fixed under this protocol.

Processing

9 Perform hematoxylin and eosin (H&E) staining on slide labeled Part#1 (see OCT spatial map in step #3 above).

10 Deliver unstained slides (Part#2 and 3) and remainder OCT block (Part#4) to BioLibrary for distribution.
Note: Keep samples frozen at all times. Store at -80 °C . Transfer/ship on dry ice.