



OMS Atlas FFPE Spatial Mapping V.2

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Version 2 ▾

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ABSTRACT

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

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KEYWORDS

biospecimen, FFPE, tissue processing, spatial mapping

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MATERIALS TEXT

MATERIALS

[Tanner Scientific 45° White Adhesive Slide with Beveled Edge](#) **Mercedes**

Medical Catalog #TNR WHT45AD

Additional equipment:

- Microtome

BEFORE STARTING

Transfer FFPE blocks to OHSU Knight Histopathology Shared Resource (HSR) for sectioning and processing. Coordinate execution of this sectioning protocol to allow for shipping within the same business week.

Preparation

- 1 Verify the identity of the FFPE block to be cut against written request for sectioning.
- 2 Label each Tanner slide with a unique BEMS ID and slide number, corresponding to the written request and FFPE spatial map (below).

Note: Slides #1-4 compose the official OMS Atlas Dataset.

| A | B | C |
|--------|---|----------------------|
| Slide# | Assay | Recipient |
| 1 | H&E | OHSU, HSR |
| 2 | Cyclic Immunofluorescence (Tumor Panel) | HMS, Alyce Chen |
| 3 | Cyclic Immunofluorescence (Immune Panel) | HMS, Alyce Chen |
| 4 | Multiplex IHC (Discovery Panel) | OHSU, Courtney Betts |
| 5 | Cyclic Immunofluorescence (Panel A) | OHSU, Koei Chin |
| 6 | Cyclic Immunofluorescence (Panel B) | OHSU, Koei Chin |
| 7 | Nanostring GeoMx Digital Spatial Profiler | OHSU, KDL |
| 8 | H&E | OHSU, HSR |

Sectioning

- 3 Align block on microtome to minimize tissue loss.
- 4 Face into block at 5µm until full section of tissue is achieved.
- 5 Cut adequate ribbon at 5µm to cover all 8 serial sections.
- 6 Mount tissue sections onto Tanner slides to maintain serial order and orientation of sections.

Processing

- 7 Perform hematoxylin and eosin (H&E) staining on slides #1 and #8.
- 8 Bake slides #2 through #6.
Note: Slide #7 should NOT be baked.

8.1 Place slides #2 through #6 in 55 °C oven overnight.

8.2 The next morning, raise the oven temperature to 🔧 **65 °C** for up to 🕒 **01:00:00** .

*Note: Slides should be baked at 🔧 **65 °C** for at least 30 minutes.*

8.3 Remove slides from oven. Place slides in slide boxes and store at room temperature.

9 Deliver slides #2 through #7 to BioLibrary for distribution.