

SOP # **1**

Subject **Embedding of Formalin Fixed Tissue**

Sheet **1** of **2**

Rev 5/9/18	Effective Date	Author
Date 2/1/15	2/1/15	Fimbres

1. PURPOSE

1.1 The purpose of this SOP is to maximize consistency in tissue embedding projects.

2. SCOPE

2.1 This SOP applies to all tissue submitted for embedding. Special embedding may be requested in which case the embedder is to make sure the request is fully understood.

3. REFERENCE DOCUMENTS

- 3.1 TACMASR Request Form
- 3.2 "Histotechnology." Frieda L Carson. 1997
- 3.3 "Histotechnology." Carson & Hladik. 2009

4. RESPONSIBILITIES

4.1 The person embedding the tissue should have experience with the tissue embedding instrument, its troubleshooting techniques and a thorough understanding of the project's needs. Tissue orientation should be clear to the embedder as to create sections that show proper cellular components.

5. MATERIALS and EQUIPMENT

- 5.1 Embedding station: heated ovens, heated paraffin pool, cold plates.
- 5.2 Melted paraffin
- 5.3 Tissue molds
- 5.4 Tissue
- 5.5 Paratrimmer
- 5.6 Forceps
- 5.7 Waste
- 5.8 Metal spatula

6. SAFETY AND CAUTIONARY NOTES

- 6.1 Gloves should be worn at all times
- 6.2 Proper attire should be worn as to avoid paraffin contamination

7. PROCEDURE

- 7.1 After processing, tissue should be placed into the oven.
- 7.2 Remove the top of the tissue cassette to reveal processed tissue
- 7.3 Discard the cover of the tissue cassette to leave the cassette boat

- 7.4 Select a mold appropriate to the tissue size
 - 7.4.1 The tissue should be in the middle of mold and should have at least a ¼ inch of space to the edge of the mold.
- 7.5 Orient the tissue
 - 7.5.1 Spleens must be cut in half and stood on edge
 - 7.5.2 Skin must be placed on edge
 - 7.5.3 The flattest side of the tissue must go down on the mold
 - 7.5.4 Sides exhibiting tumor-like morphology should go down on the mold
 - 7.5.5 Tissue will be placed on a diagonal angle as to create less friction for microtomy use.
- 7.6 Bring the tissue to the first cold plate to secure the tissue to the bottom of the mold
- 7.7 Without touching the heated areas of the embedder, place the tissue cassette boat over the mold and add more paraffin to the top of the mold-cassette.
- 7.8 Take the mold-cassette contraption to the second cold plate.
- 7.9 Allow the paraffin to harden for ~60 minutes
- 7.10 Remove the paraffin block for the metal mold by using the metal spatula as a lever on the edge of the mold-cassette.
- 7.11 Allow the paraffin block to sit for 15 minutes to come to room temperature.
- 7.12 Using the paratrimmer, clean off the edges of the paraffin block.
- 7.13** Pair the block to the proper request form.