

Materials List for:

# Reconstruction of 3-Dimensional Histology Volume and its Application to Study Mouse Mammary Glands

Rushin Shojaii<sup>1</sup>, Stephanie Bacopulos<sup>2,3</sup>, Wenyi Yang<sup>2,3</sup>, Tigran Karavardanyan<sup>4</sup>, Demetri Spyropoulos<sup>5</sup>, Afshin Raouf<sup>6</sup>, Anne Martel<sup>1,4</sup>, Arun Seth<sup>2,3</sup>

<sup>1</sup>Department of Medical Biophysics, University of Toronto

<sup>2</sup>Platform Biological Sciences, Sunnybrook Research Institute

<sup>3</sup>Department of Laboratory Medicine and Pathobiology, University of Toronto

<sup>4</sup>Physical Sciences, Sunnybrook Research Institute

<sup>5</sup>Department of Pathology and Laboratory Medicine, Medical University of South Carolina

<sup>6</sup>Manitoba Institute of Cell Biology, University of Manitoba

Correspondence to: Rushin Shojaii at [rushin.shojaii@sri.utoronto.ca](mailto:rushin.shojaii@sri.utoronto.ca)

URL: <https://www.jove.com/video/51325>

DOI: [doi:10.3791/51325](https://doi.org/10.3791/51325)

## Materials

Name	Company	Catalog Number	Comments
16% PFA	VWR International	15710	16% Paraformaldehyde solution
Small tissue processing cassettes	VWR International	CA95029-956	
Leica ASP300 automated tissue processor	Leica	14047643515	
100% Ethanol	Fisher Scientific	S25307B	
Xylene	VWR International	CA95057-822	
Paraffin	Thermo Fisher	39501006	Paraplast tissue embedding medium
Leica EG 1160 embedding center	Leica		
Leica rotary microtome	Leica		
Milling machine	Argo		
Microscope slides	VWR International	CA48312-015	
H&E stain	VWR International		
Automatic stainer			
Coverslips	VWR International	48404-452	
MEDITE RCM 7000 glass coverslipper	MEDITE		
Leica SCN400 slide scanner	Leica		
MATLAB	MathWorks Inc	MATLAB 2007b	Development software
MeVisLab	MeVis Medical Solutions AG	MeVisLab 2.1	3D visualization software