Rendering of models with Imaris
(without use of ImarisXT)

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Dataset: Huh7_CmVTag1_R2_Pos5.tif (original), obtained by Serial Block Face SEM
Huh7_CmVTag1_R2_Pos5_crop.tif (cropped)
Dimensions: 32.58 x 32.58 x 2.22 µm (original)
7.01 x 4.99 x 2.22 µm (cropped)
Pixel size: 13.45 x 13.45 x 30 nm
Model: Link

1. Load the dataset. Double click on the *'Huh7_CmVTag1_R2_Pos5_crop.tif'* file

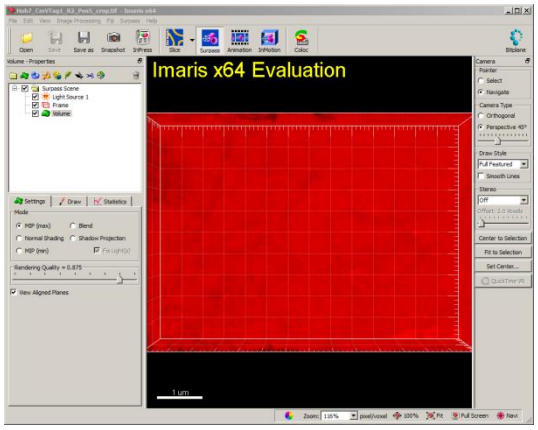
2. Load the model. *Segmentation Panel->Load->Model2.mat*

3. Export the model as TIF files.

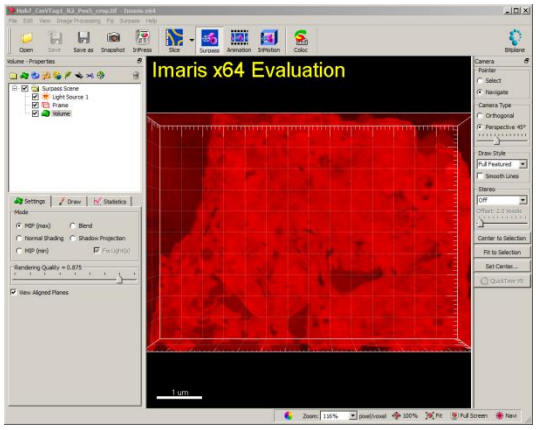
I. Select *LipidDroplets* in the Materials list: *Segmentation Panel->Materials: LipidDroplets;*
II. Uncheck the *Show all* checkbox in the *Segmentation panel.*
III. *Menu->Models->Save model as...->Save as type: TIF format (*.tif); File name: LD.tif;* press *Save*
IV. Repeat I - III for NuclearEnvelope, ER and Mito.

4. Start Imaris

5. Open the dataset in Imaris. Press *Open* and select *'Huh7_CmVTag1 _R2_Pos5_crop.tif'*

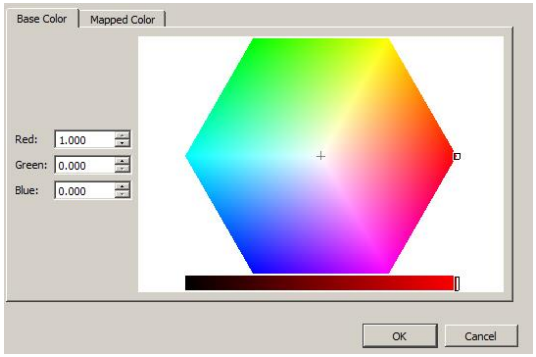


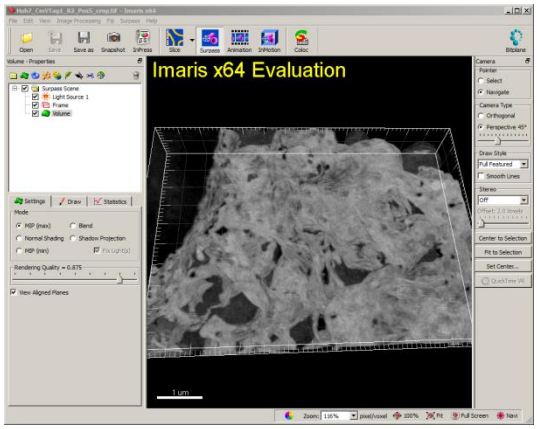
6. Invert the colors. *Menu->Image Processing->Contrast Change->Invert...->OK*



7. Set default colors.

I. *Menu->Show Display Adjustment->ON*
II. *Display Adjustment*->Click *Channel 1*
III. Click in the center of the color hex.
IV. Press *OK*
V. Adjust sliders in the *Display adjustment window->Channel 1* for best view.

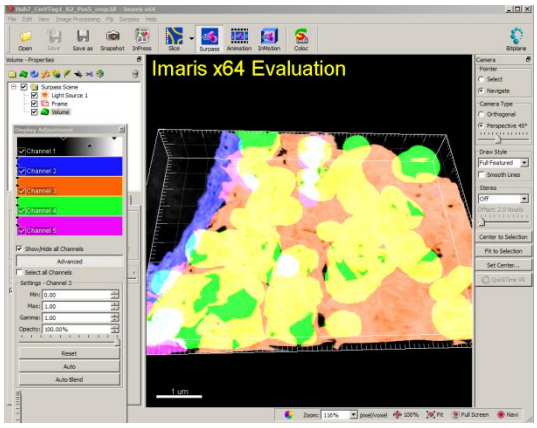




8. Set the dataset dimensions. *Menu->Edit->Image Properties->Voxel Size Z: 0.030.* The X/Y dimensions should be automatically detected.

9. Add models as a separate color channels.

I. *Menu->Edit->Add Channels*->select 'NE.tif'
II. *Menu->Edit->Add Channels*->select 'ER.tif'
III. *Menu->Edit->Add Channels*->select 'mito.tif'
IV. *Menu->Edit->Add Channels*->select 'LD.tif'
V. Set desired colors for the imported channels in the *Display Adjustment* window.

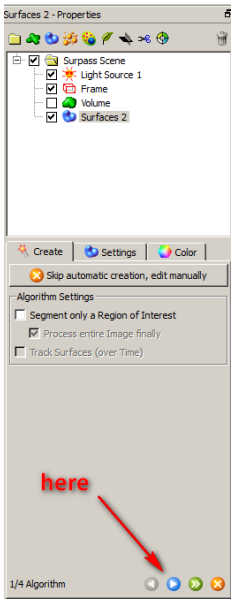


10. Generation of surfaces.

I. Turn off the Volume object: *Volume Properties Panel->Surpass Scene->*Uncheck *Volume.*

II. Add a model: *Menu->Surpass->Surfaces*

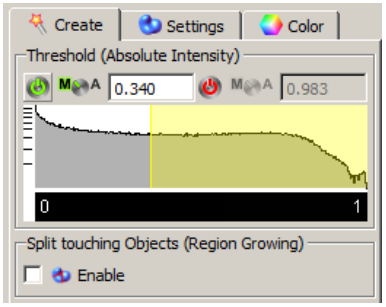
III. Press the blue button with a triangle (Next) in the *Create* Tab.



IV. Select the *Source channel: Channel 2*

V. Press *Next.*

VI. Adjust the left threshold value to about 0.34.



VII. Press *Finish.*

VIII. Repeat II-VII for Channels 3-5.

11. The model is ready.