DSA and Registration Plugin

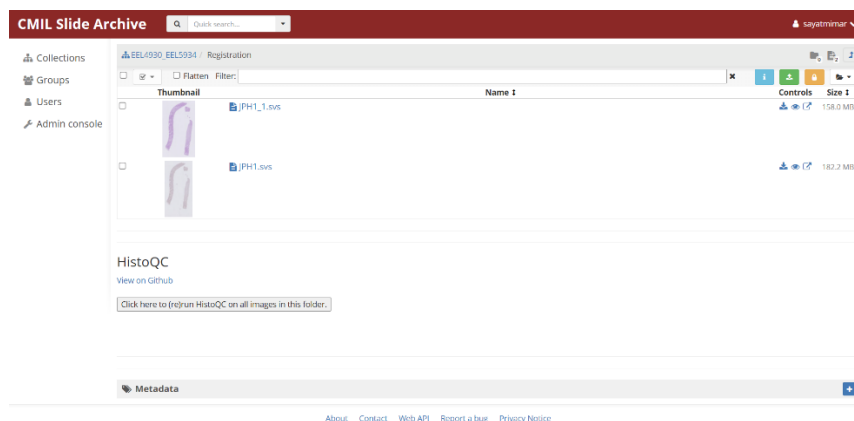## Registration and login

- Go to https://athena.rc.ufl.edu to access the Digital SlideArchive and click on 'Log In' with userame:public and password:public If you have any difficulty accessing your account, please contact us.
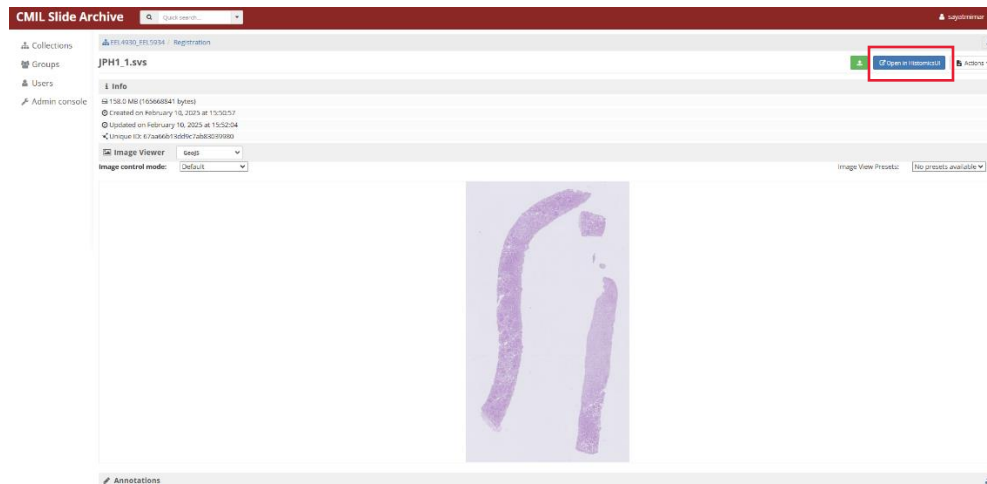

Access a Whole Slide Image

- 'Collections' on the menu to the left to access folders where image data is saved. The saved images will appear as a list under folders. Navigate to Registration directory under EEL4930_EEL5934 collection. Under the directory, you can see images.
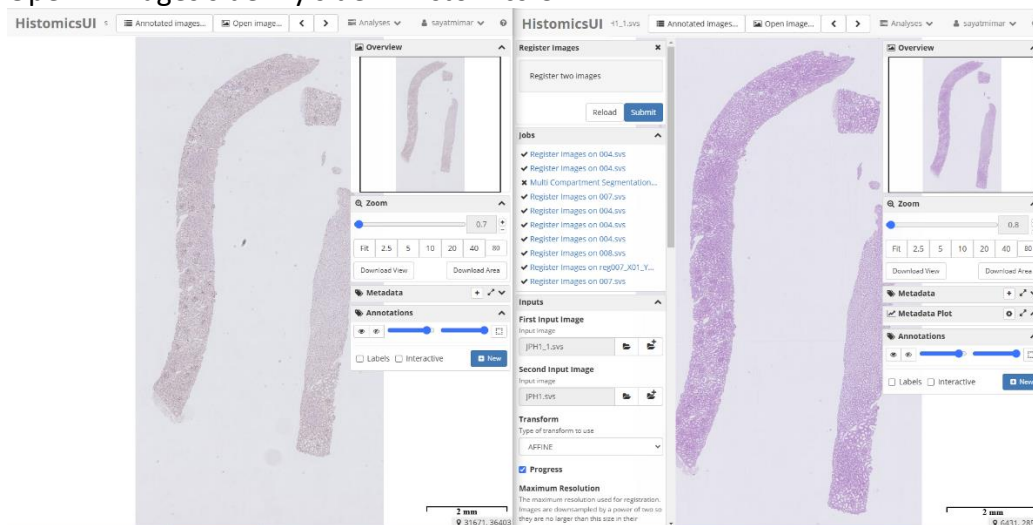

Visualize a Whole slide image in Histomics UI

- A Whole Slide Image can be opened in a page by clicking the file name. To visualize the image and associated annotations, click on Open in HistomicsUI where you can analyze the whole image or parts of it by zooming in/out.
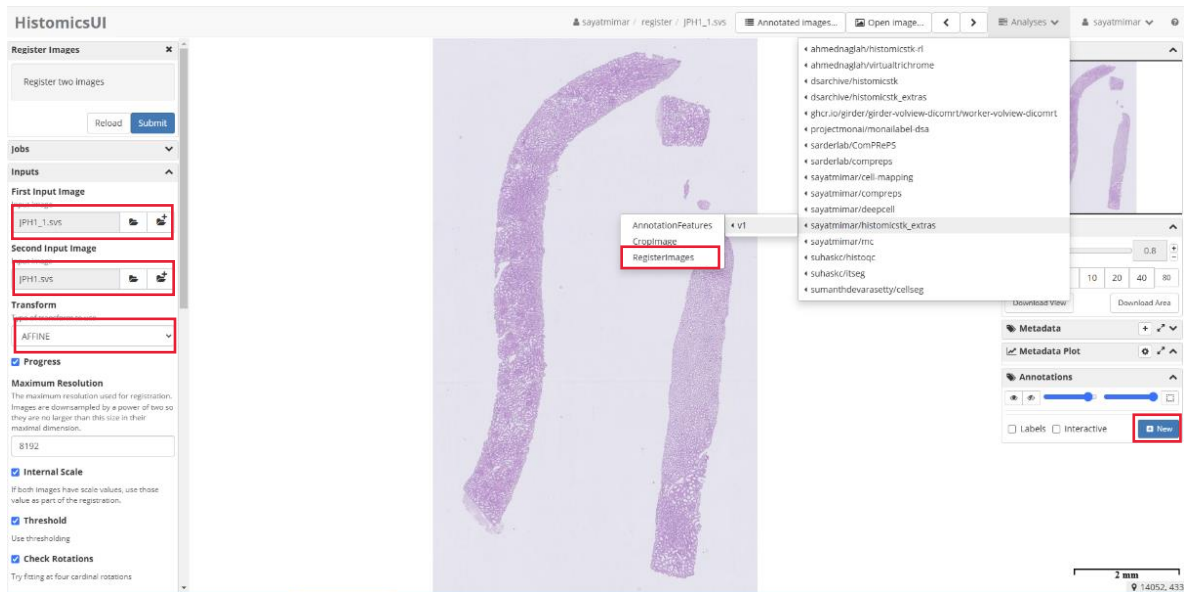
Running the plugin (histomicstk):
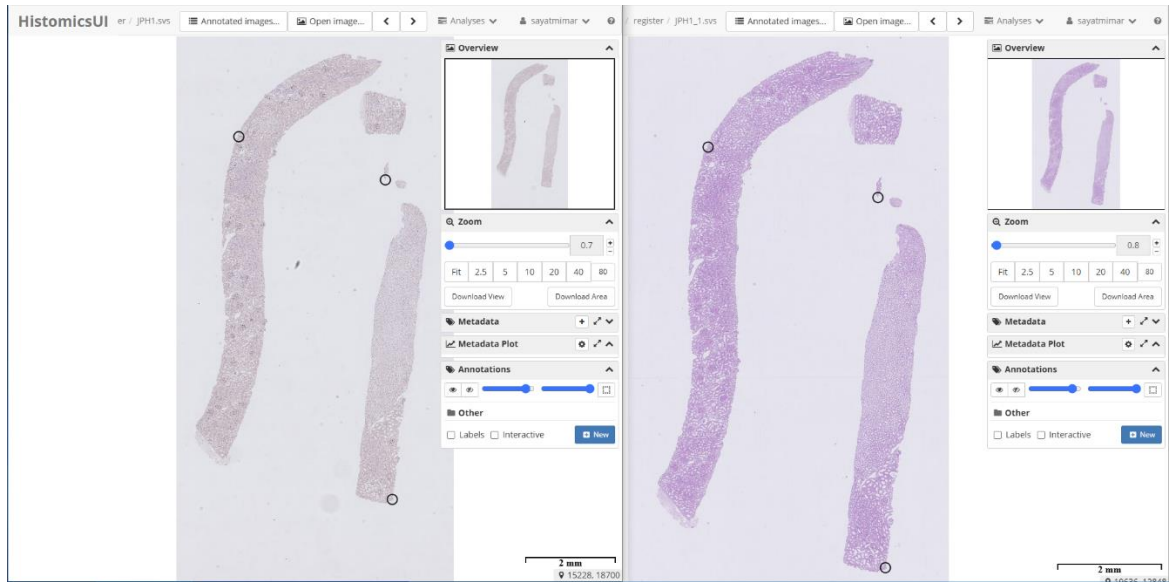
- Open 2 images side my side in histomics UI:

- Open the registration plugin from *histomicstk_extras/latest/RegisterImages*
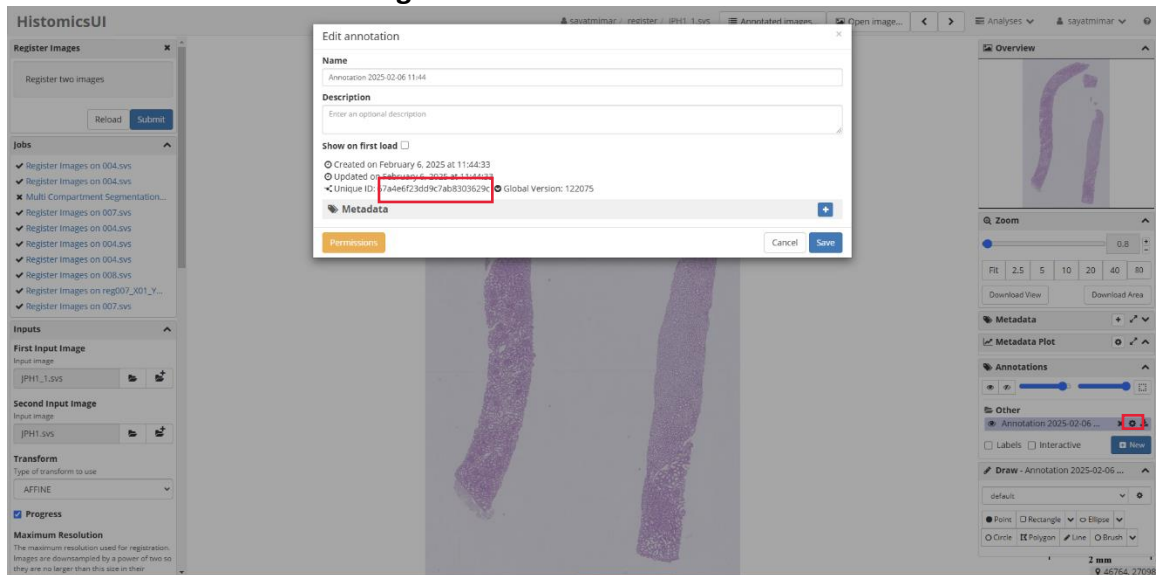
- Select **First Input image** and **Second input image**
- Select **Affine** from **Transform**
- Now, create an annotation layer for both images by clicking [New] on the right hand side and **save.**
- Click on the layer you just created and select Point. (Layer name can be changed by clicking ⚙ in the layer.)

- Select 3 reference points in both images in the same order as shown below. The landmarks are chosen to associate the same structures in both images.

- Once done, click on ⚙ right next to the annotation layer you just created and copy the Unique ID from both images and paste them to **Annotation ID on First Image** and **Annotation ID on Second Image** as shown below.

- You're all set! Now**, submit** the job. I should take anywhere between 15 to 30 mins depending on the size of the images. When it is done, there'll be a **RegisteredMerged** image in the Private Folder under Users/public user/Private.
- Visualize output by overlaying the registered image on the first one. Image 1 in red, image 2 in green, overlap in yellow.