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Body Composition

A Chest Imaging Platform Slicer Extension module

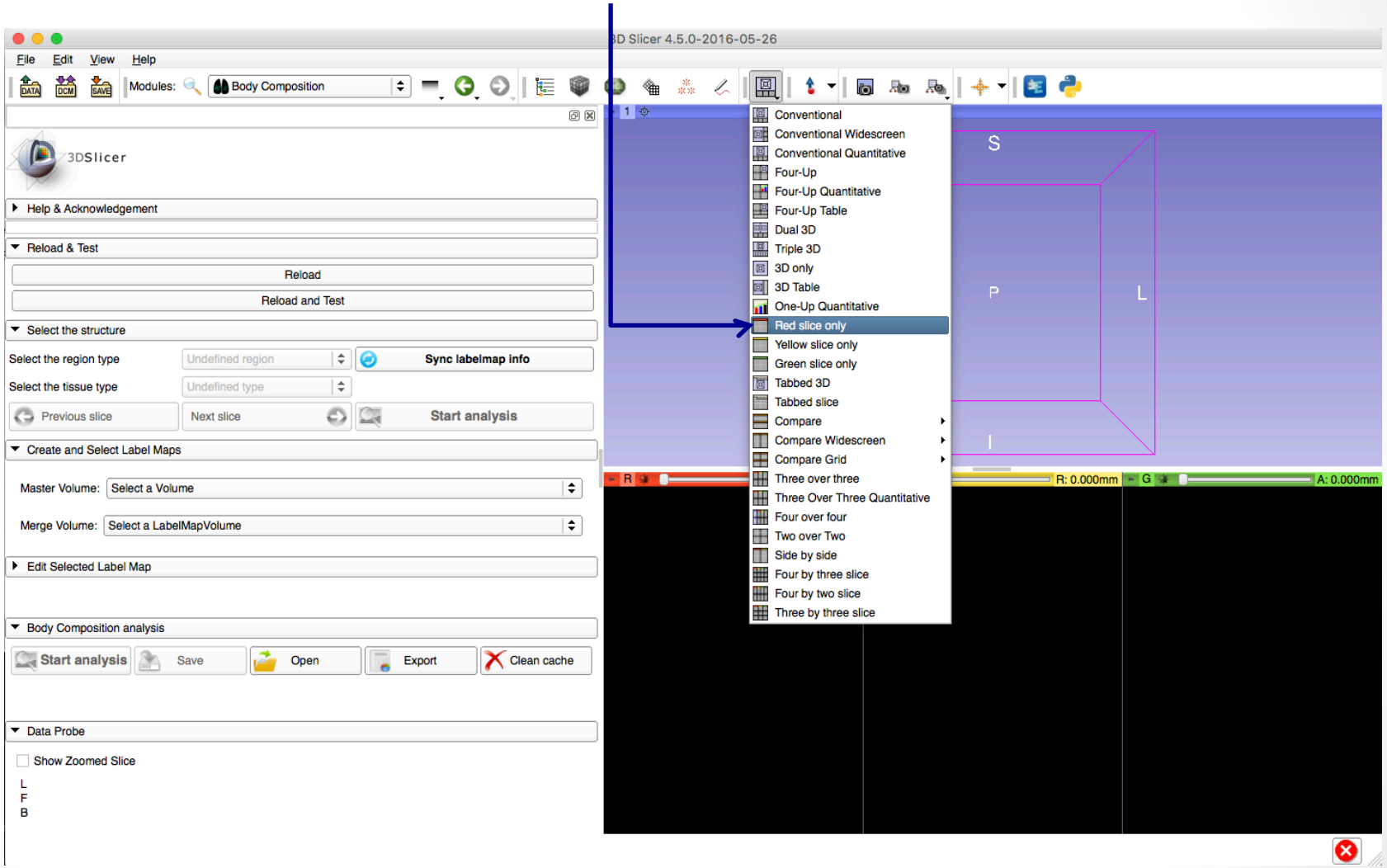
Overview

- Goal: Obtain measurements of muscle and fat composition in Chest CT to assess body composition
- The module will enable:
  - Label different lung structures with an optimized version of the Slicer Editor
  - Faster labeling with window contrast levels and label threshold optimized for every structure
  - Run basic statistic analysis for each one of the different structures
  - Export the analysis results to a CSV file, easy to manage for your study

Body Composition

1- Launch Body composition module

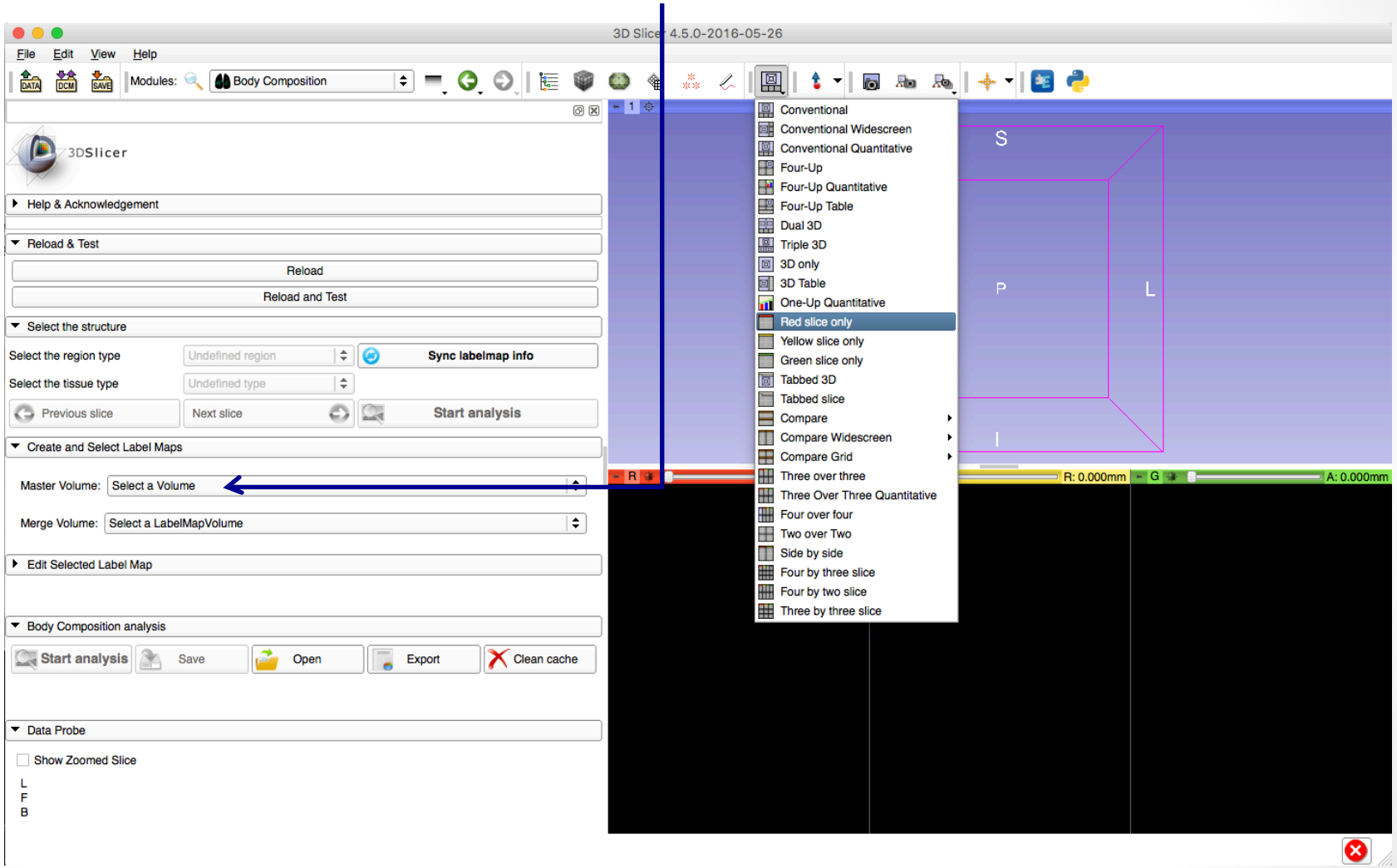
Tip: Axial view is recommended (Red slice only layout)



Body Composition

2- Select an input CT image.

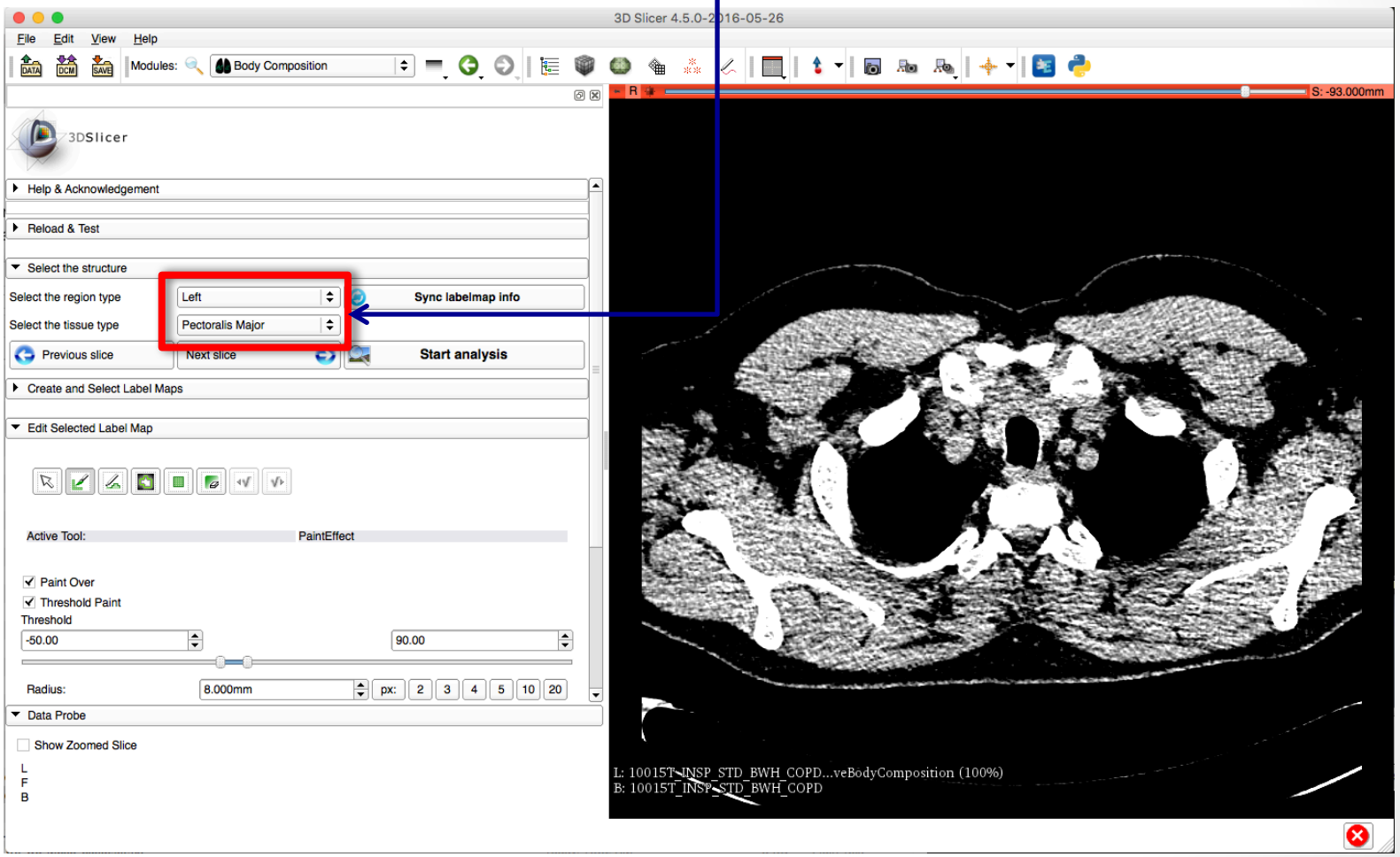
Tip: A default label map will be created



Body Composition

3- Select the structure that you want to label.

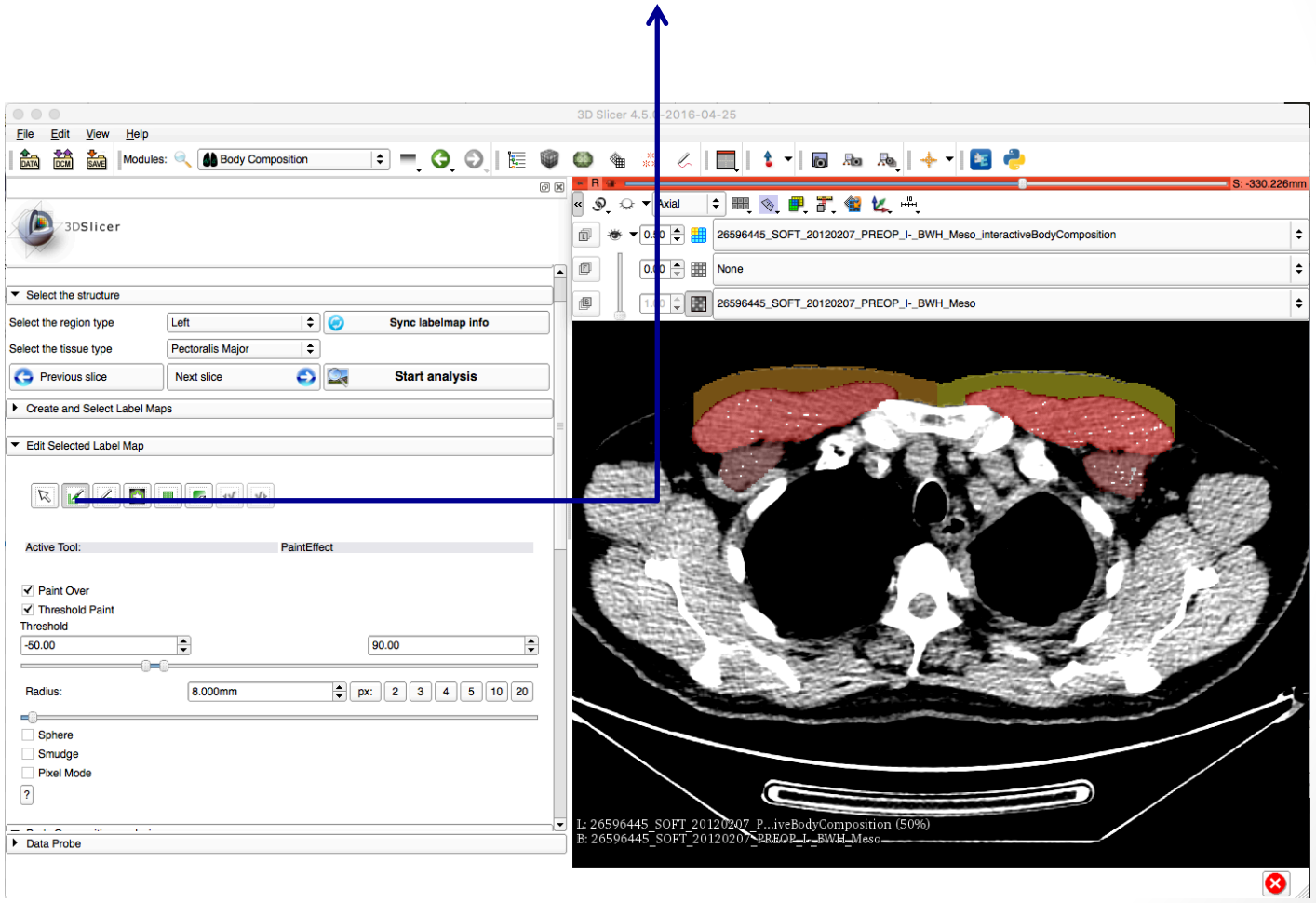
Tip: Window contrast level will be automatically adjusted for a better visualization of the structure



Body Composition

4- Draw the specific structure using the optimized Slicer Editor.

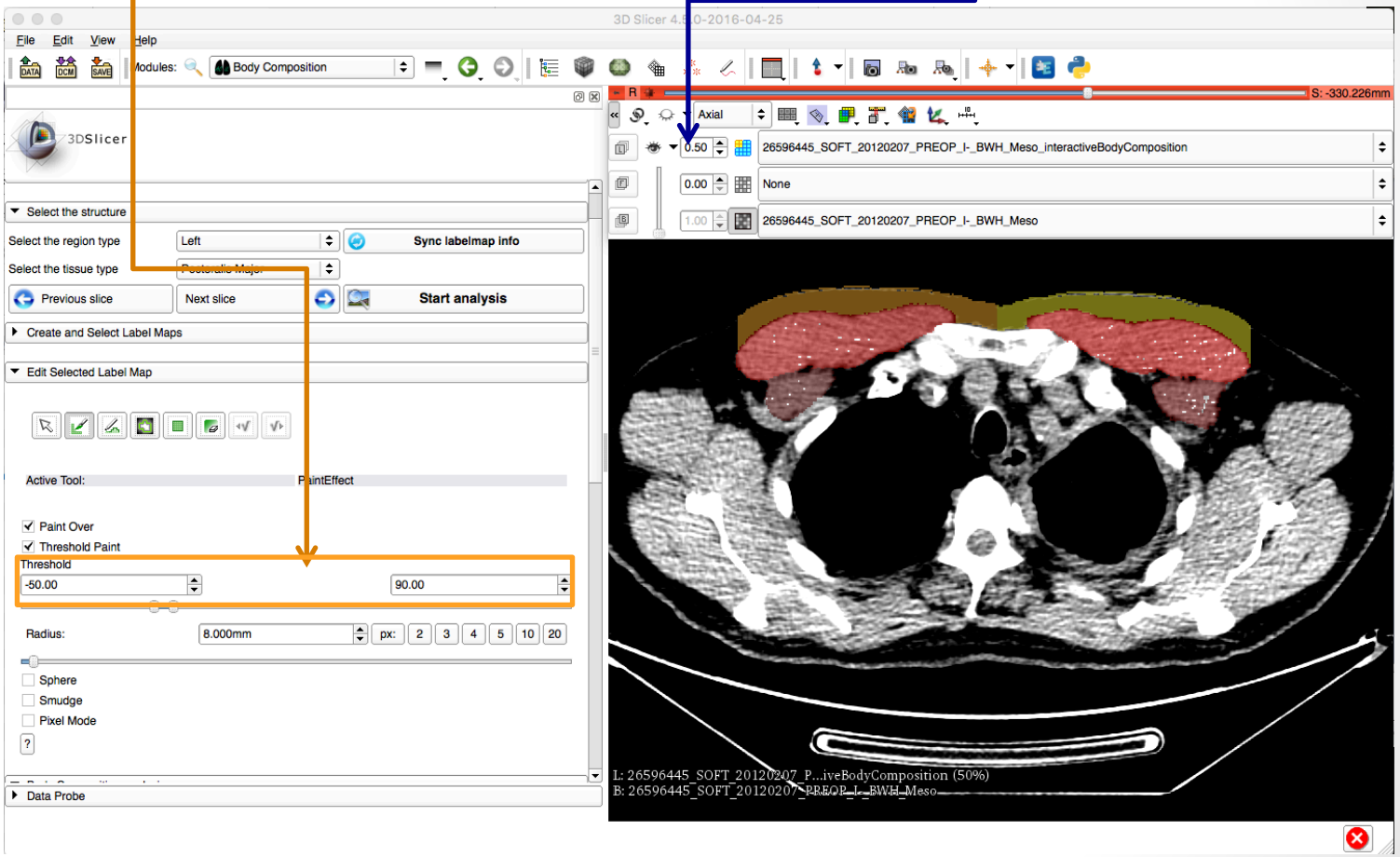
Tip: when the structure is selected, the recommended tool will be selected too, but it could be changed as desired.



Body Composition

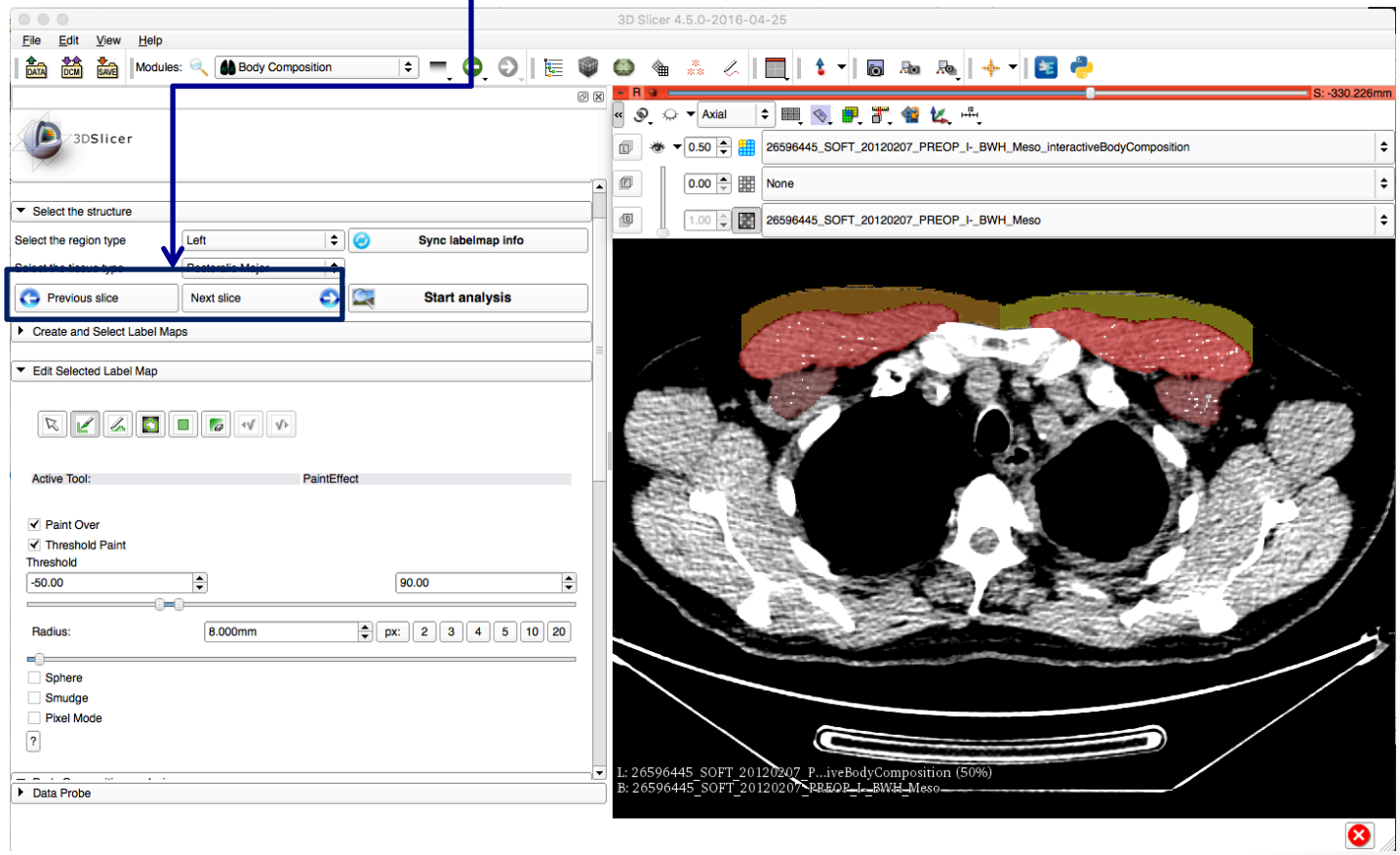
Tip: the labelmap opacity could be adjusted if desired.

Tip: Adjust the threshold level where the structure is constrained if desired.



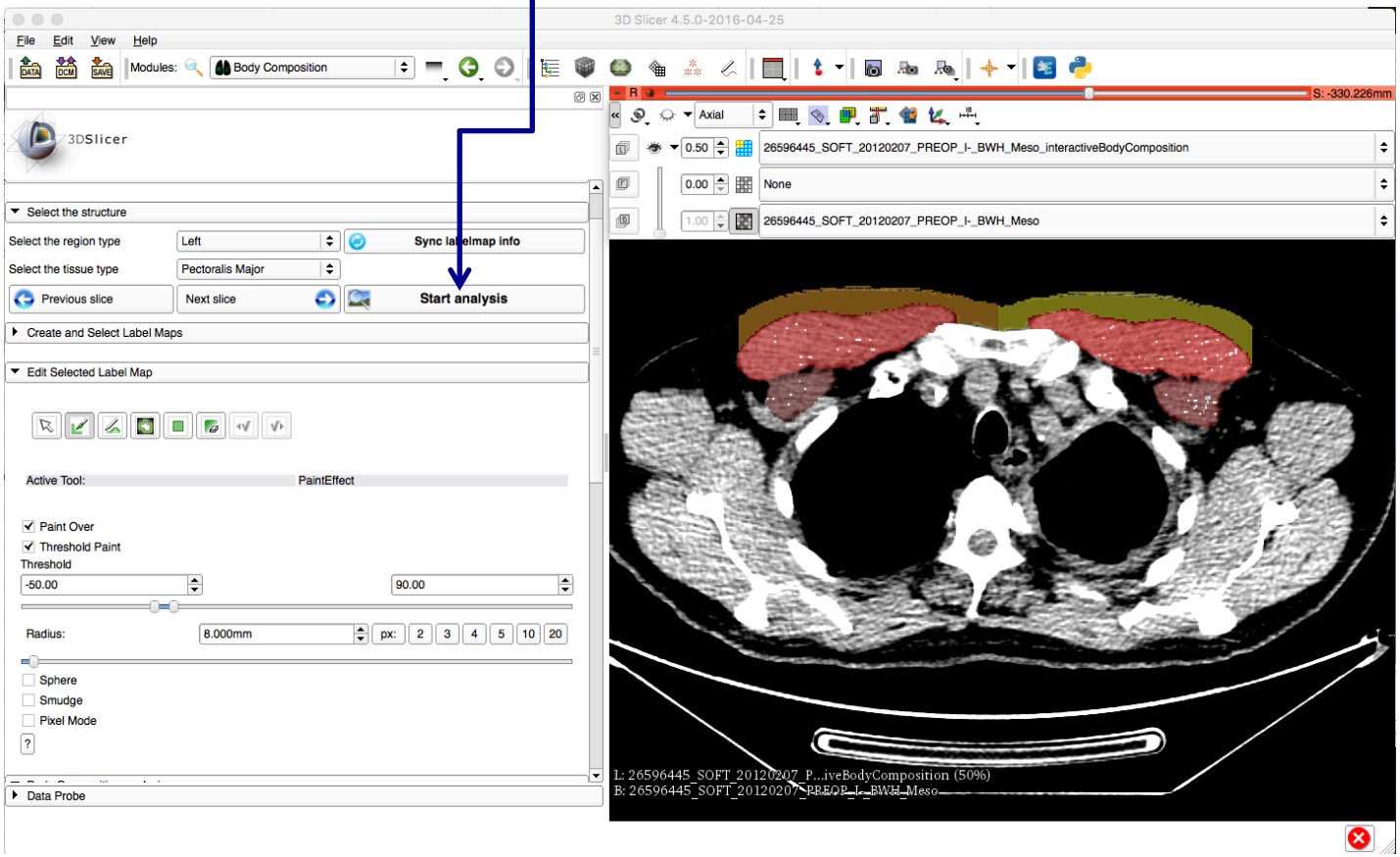
Body Composition

Tip: Use "Previous slice" and "Next slice" buttons to navigate through the different labeled structures



Body Composition

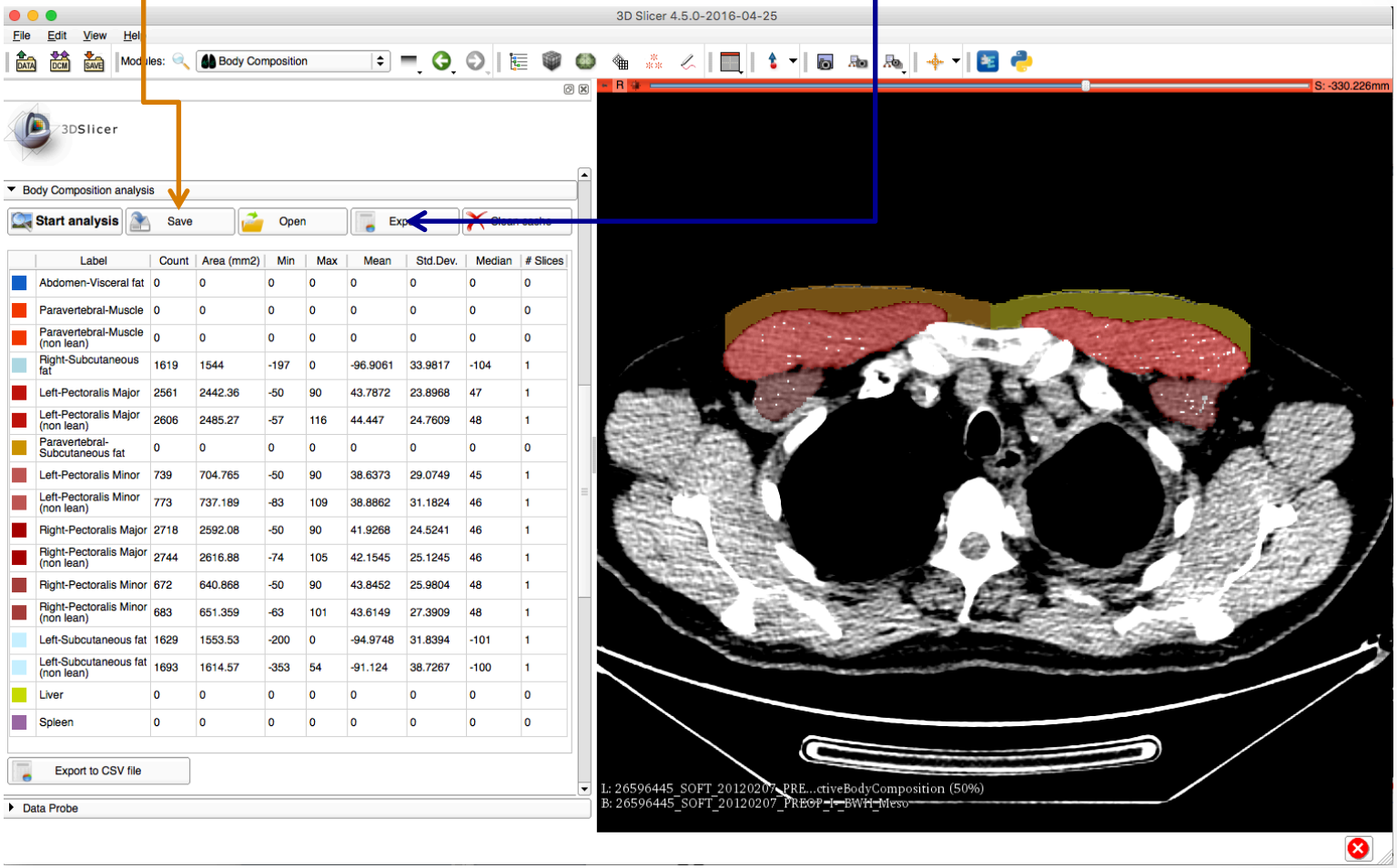
5- Click the “Start analysis” button to run the statistical analysis for every labeled structure



Body Composition

6- Export to a .csv file the results of this individual case

If desired, save the results of the analysis for a later study



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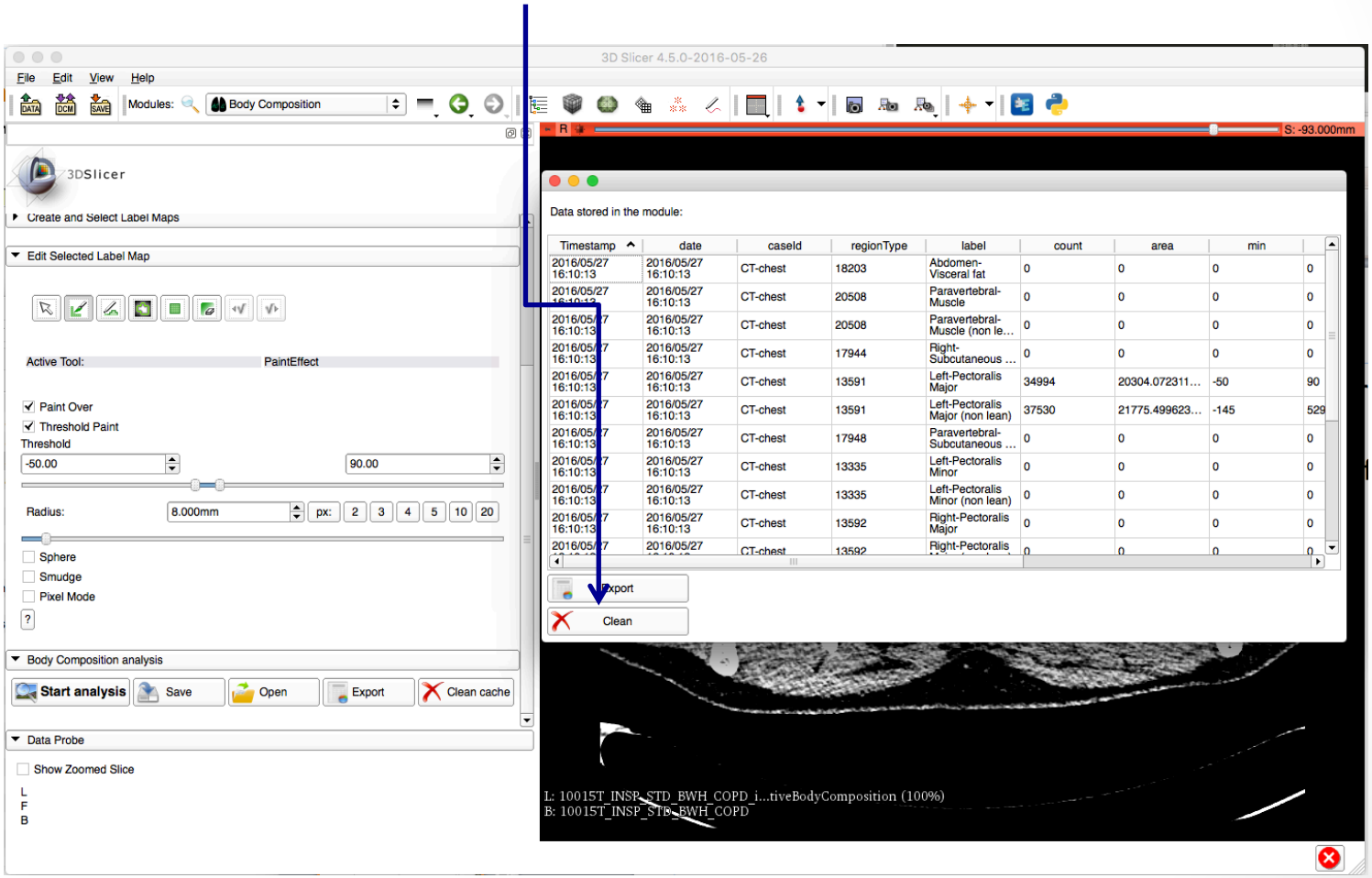
The Body Composition module keeps a table of every case whose analysis has been saved.

Tip: Click "Clean" to eliminate the data.



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- The Body Composition module is part of the Chest Imaging Platform extension for 3D Slicer (www.chestimagingplatform.org)

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