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SCIENTIFIC UPDATE: NEW FEATURES IN THE AUGMENTIQ'S REAL-TIME TELEPATHOLOGY SOFTWARE

I would like to share several new software features recently added to the Augmentiqs system installed at my office - microscope. These examples reflect relevant applications in efficacy and safety models.

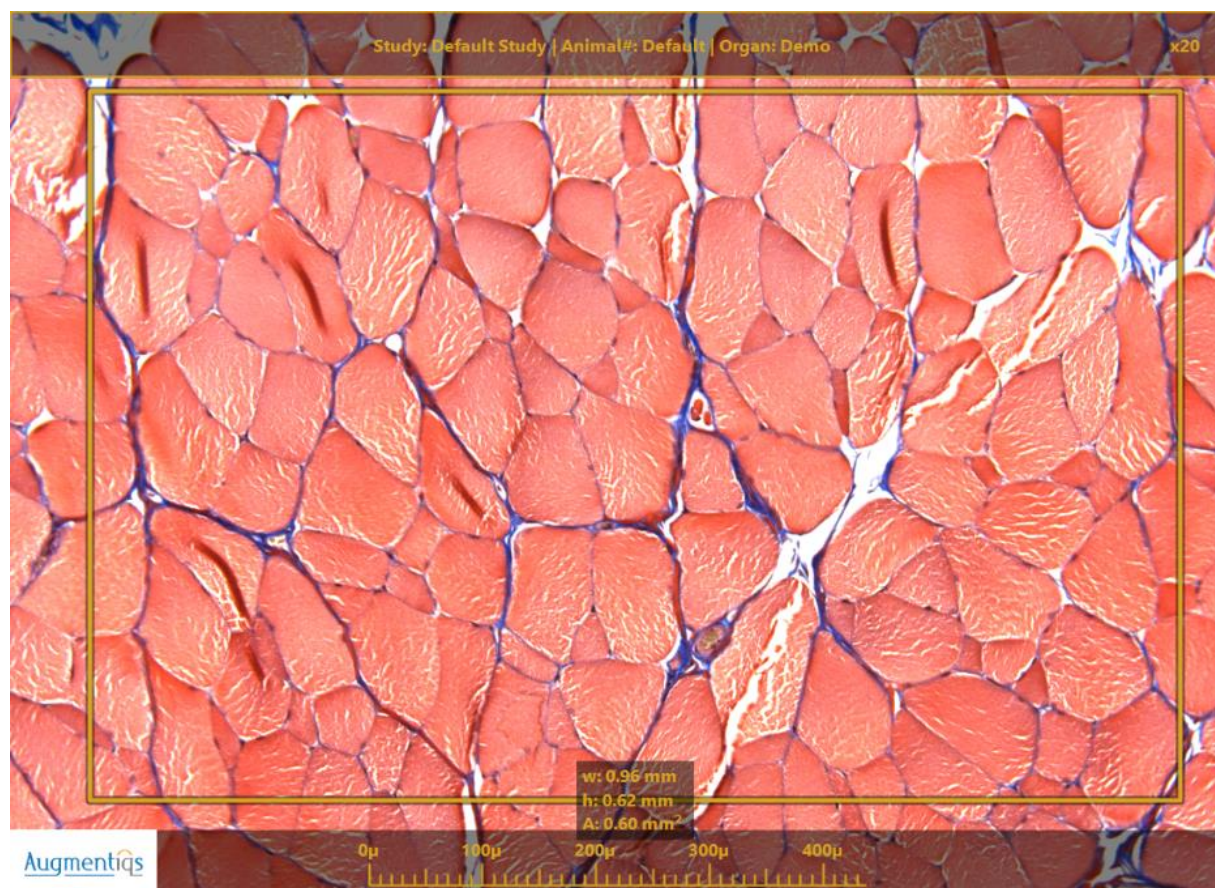
EXAMPLE # 1:

Augmentiqs can easily measure the "*relative area percentage*" of any particular well differentiated stained component of the tissue (via color deconvolution). The procedure is performed as follows:

- Marking a "region of interest" (ROI) on an image from the microscope
- Measure the area colored with a certain stain and calculate the percentage of the colored area from the total ROI area.

For example, if the slide was stained with Masson Trichrome, then the percent of the blue area (composed of collagen) can be quantified.

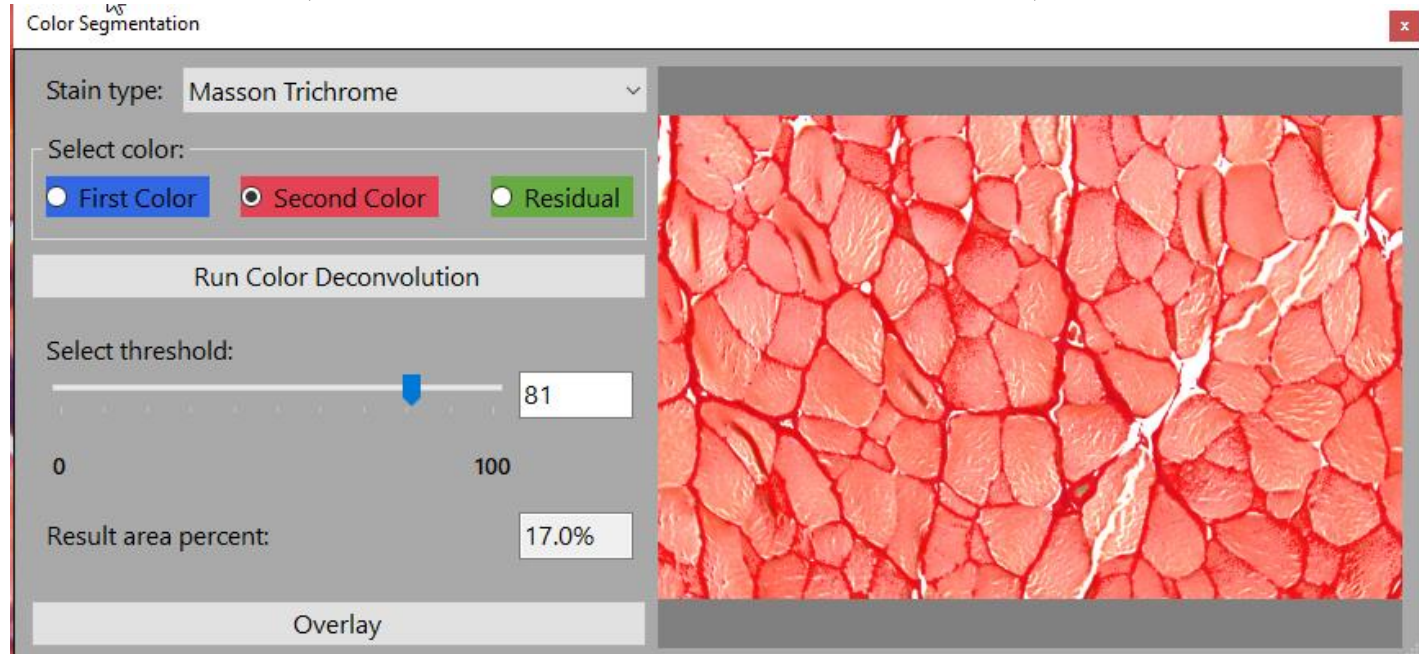
In the following example, I can automatically measure the "relative area percentage" of the connective tissue in skeletal muscle section, stained by Masson's Trichrome. Blue areas reflect connective tissue; red areas reflect striated muscle.



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In the photo below is automatic application and segmentation of the "*relative area percentage*" of the connective tissue. (In this case the calculated connective tissue area is 17%.)



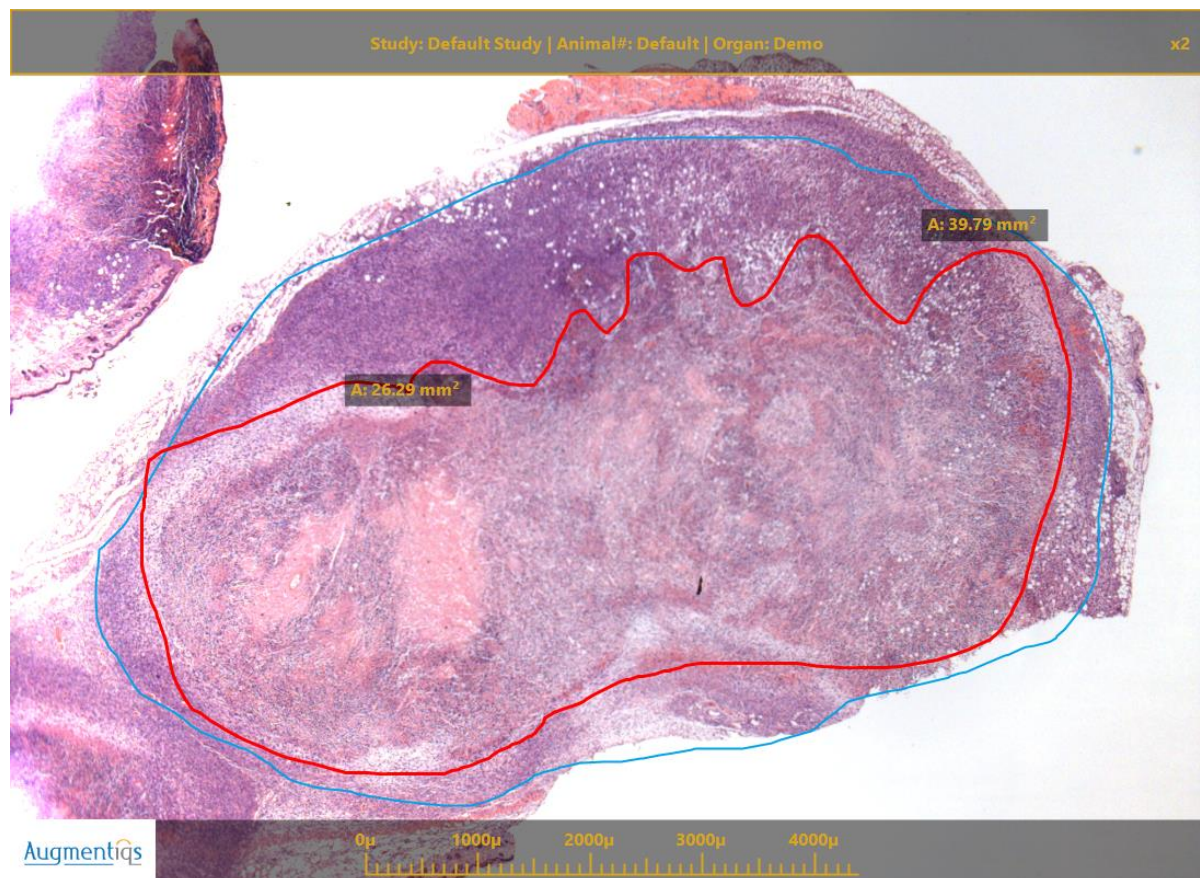
Conclusion: The calculation of "*relative area percentage*" is accurately done in matter of seconds.

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EXAMPLE # 2:

Augmentiqs can easily measure the relative necrotic area in a subcutaneous mouse induced cancer (fibrosarcoma) model. In the photo below is a histological section of the subcutaneous tumor, and how I am “marking” and delineating (using the free hand drawing software tool) the margins of the entire tumor area (i.e., blue colored line), and margins of the necrotic area (i.e., red colored line). The areas are automatically printed in the photo.



Conclusion: The measurement and calculation "relative necrotic area in tumor" is accurately done in matter of seconds.

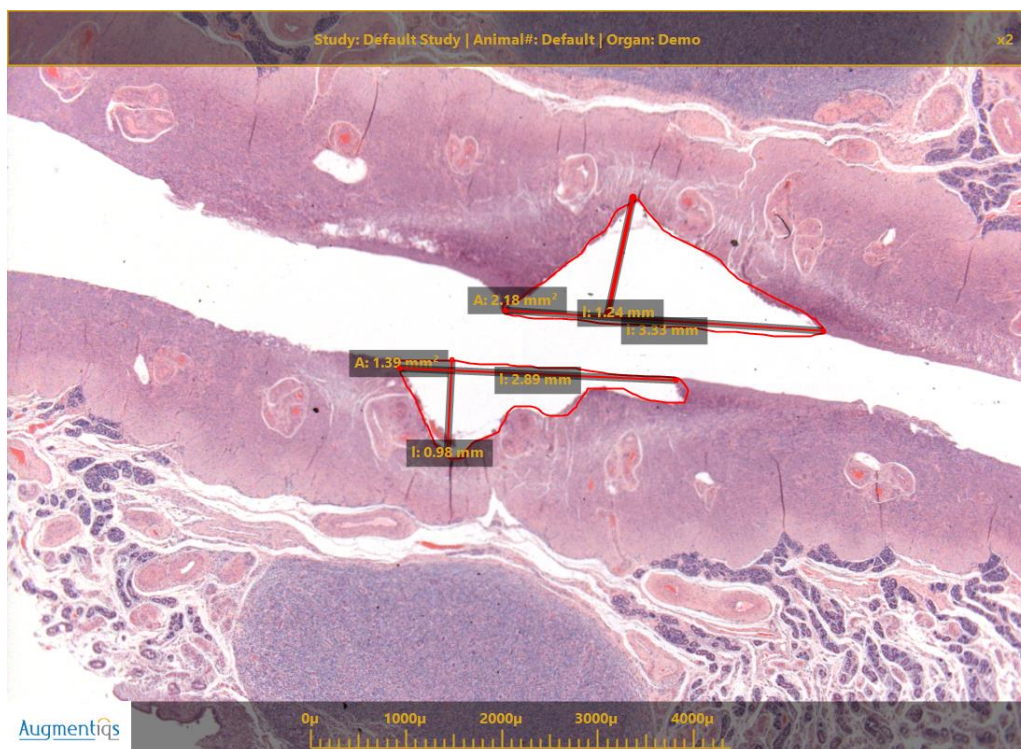
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EXAMPLE # 3:

Augmentiqs can easily measure the relative coagulated necrotic area in a model aimed to measure the size of purposely induced coagulation necrosis when testing the efficacy of a new device.

In the photo below is a histological section of an uterus and how I am “marking” and delineating (using the free hand drawing software) the margins of the entire coagulated necrotic area (i.e., red colored line), as well as the depth and width of the necrotic area. The values are automatically printed in the photo.



Conclusion: The measurements of “necrotic area, depth and width” are accurately done in matter of seconds.

In summary: The use of Augmentiqs real-time telepathology system enables pathologists to get the most accurate pathology data in an efficient and cost-effective way. Augmentiqs is also ideal for instant consultation and peer review, facilitating good science and economic benefits by enabling more timely and informed clinical decisions.