

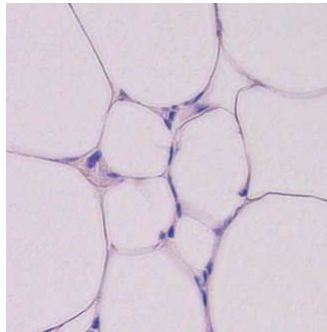
WimAdipose

Image Analysis for Adipose Tissue



Adipocytes play an important role in energy and glucose metabolism, serving both as energy storage units as well as endocrine regulators for these processes. Being adipocyte size their major modulator, the measurement of adipocyte cross-sectional surface area has been widely used to provide accurate and reproducible characterization of metabolic-related diseases like obesity, diabetes and various cardiovascular diseases. The direct measurement of adipocyte size by microscopy is widely used, although the method is tedious and time consuming. Computer-assisted image analysis can overcome most of the disadvantages associated with this technique.

Wimasis Adipose tool is designed to generate objective and reproducible quantification of adipocyte sizes in hematoxylin and eosin (H&E) stained histological sections. The quantification is based on the detection of the whole cell population and the measurement of the cross-sectional area distribution of the detected cell adipocytes. This recognition is possible thanks to our fast high-end image processing algorithms, which allow an automatic accurate analysis of the cell cultures in record time.



Adipose Tissue images granted by the ZIEL Molecular Nutritional Medicine department of the Technische Universität München.

Wimasis Adipose tool uses as input H&E stained histological section microscope images of white adipose tissue. Importers for whole-slide images or virtual images (.svs, .vms, .vmu, .scn, .mrxs, tiled .tif) can be developed upon request.

This image analysis tool provides the following output data for each analyzed image:

- Total cell count: total number of detected adipocytes in the image.
- Mean cell area: mean area of the adipocytes' areas [px] ([μm²], if conversion provided)
- STD cell area: standard deviation of the adipocytes' areas [px] ([μm²], if conversion provided)
- Mean equivalent diameter: mean of the adipocytes' equivalent diameter [px] ([μm], if conversion provided)
- STD equivalent diameter: standard deviation of the adipocytes' equivalent diameter [px] ([μm], if conversion provided)
- Cell area: list of the area of each detected adipocyte [px] ([μm²], if conversion provided).

Try Wimasis Adipose tool for free at mywim.wimasis.com and experience for yourself the easy adipose tissue quantification.

Because every research is unique, Wimasis Adipose tool is engineered with the flexibility to adapt to the needs of every researcher. If your assay does not fit the requirements above, send us a quick note or reach us at:

contact@wimasis.com or +49 (0)89 452 44 66 50