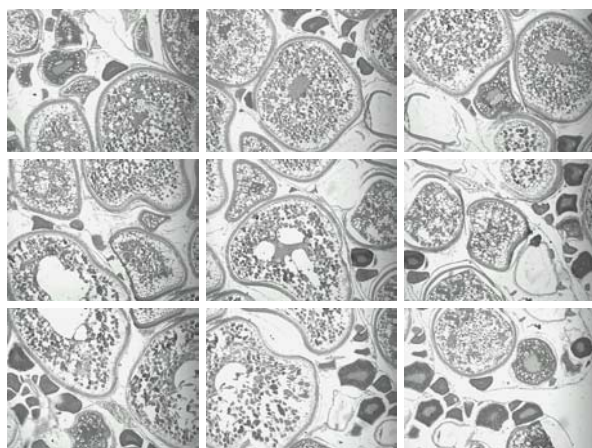# Image Montage

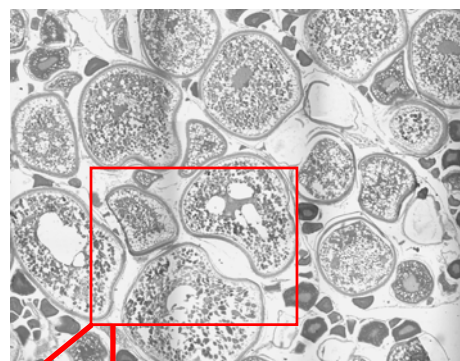## Automatic Image Formation from Sub-images

Aphelion™ Image Montage is an optional tool used to construct a larger image from a set of smaller, overlapping images. By combining several smaller images, Image Montage constructs a seamless, mosaic image. This new mosaic image can then be analyzed as a whole, or in regions of interest that cross the boundaries of the smaller images. Since image backgrounds are not always uniform in overlapping areas, Image Montage can automatically adjust the mosaic image's intensity to provide smooth transitions across the overlapping areas.

For microscopy applications, Image Montage facilitates reconstruction of a full image from a set of smaller images captured with a microscope, without the use of an expensive, automatic stage.
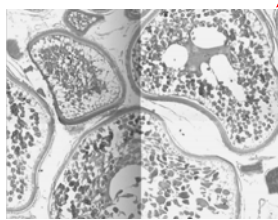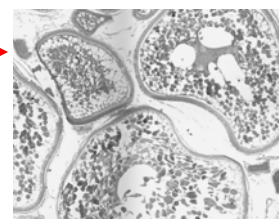
**Step 1: Acquire images**

**Step 2: Construct new image**



**Without background correction**

**With background correction**

All Image Montage commands, such as the definition of movement or the size of the overlapped regions, can be controlled from the Aphelion™ GUI or from Image Montage as a stand-alone application.

**Key strengths of Aphelion™ Image Montage:**
- Dramatically reduces the cost of an automatic microscopy system by eliminating the need to purchase an expensive automatic stage and controller
- Easily constructs a large image from images generated by inexpensive or small field of view devices (e.g., webcams)
- Quickly performs an image reconstruction with background correction