1) Description of how to use this XTension

This function can provide a way to join two or more consecutive filaments into a new unique object in the Surpass Scene.
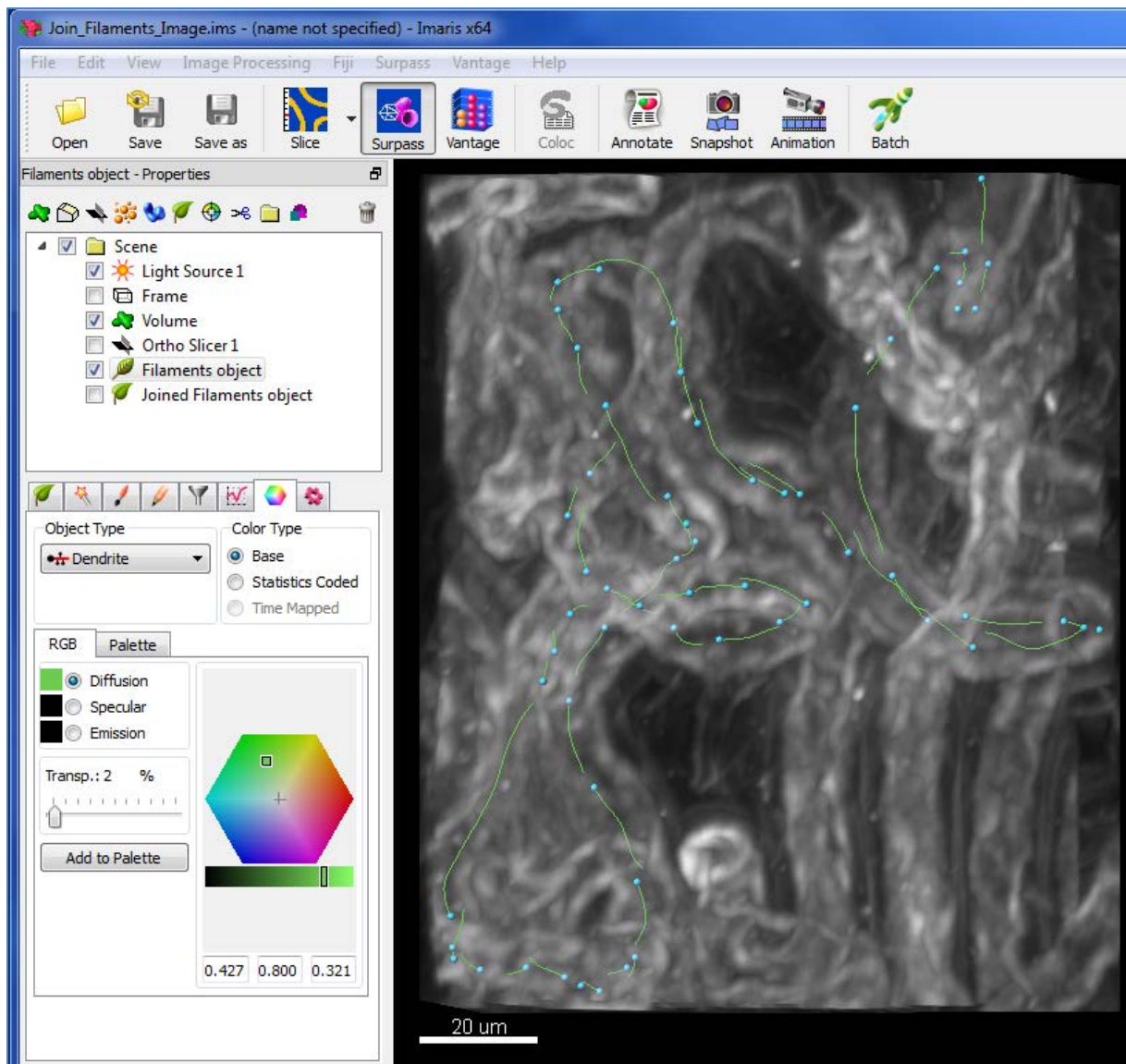
The resulting new filament is obtained by joining the end point of a given filament with the start point of the following (and so on). The order of the different joint segments in the resulting new filament is the order of creation of each original filaments (increasing ID number).

The function does not destroy the original initial filaments. Use this function only for simple filaments (without spines or branching points).

To run this XTension the user has to create a minimum of two disconnected filaments (Filaments object in the Surpass Scene).
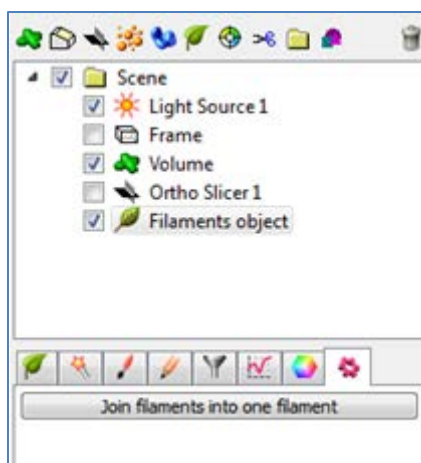
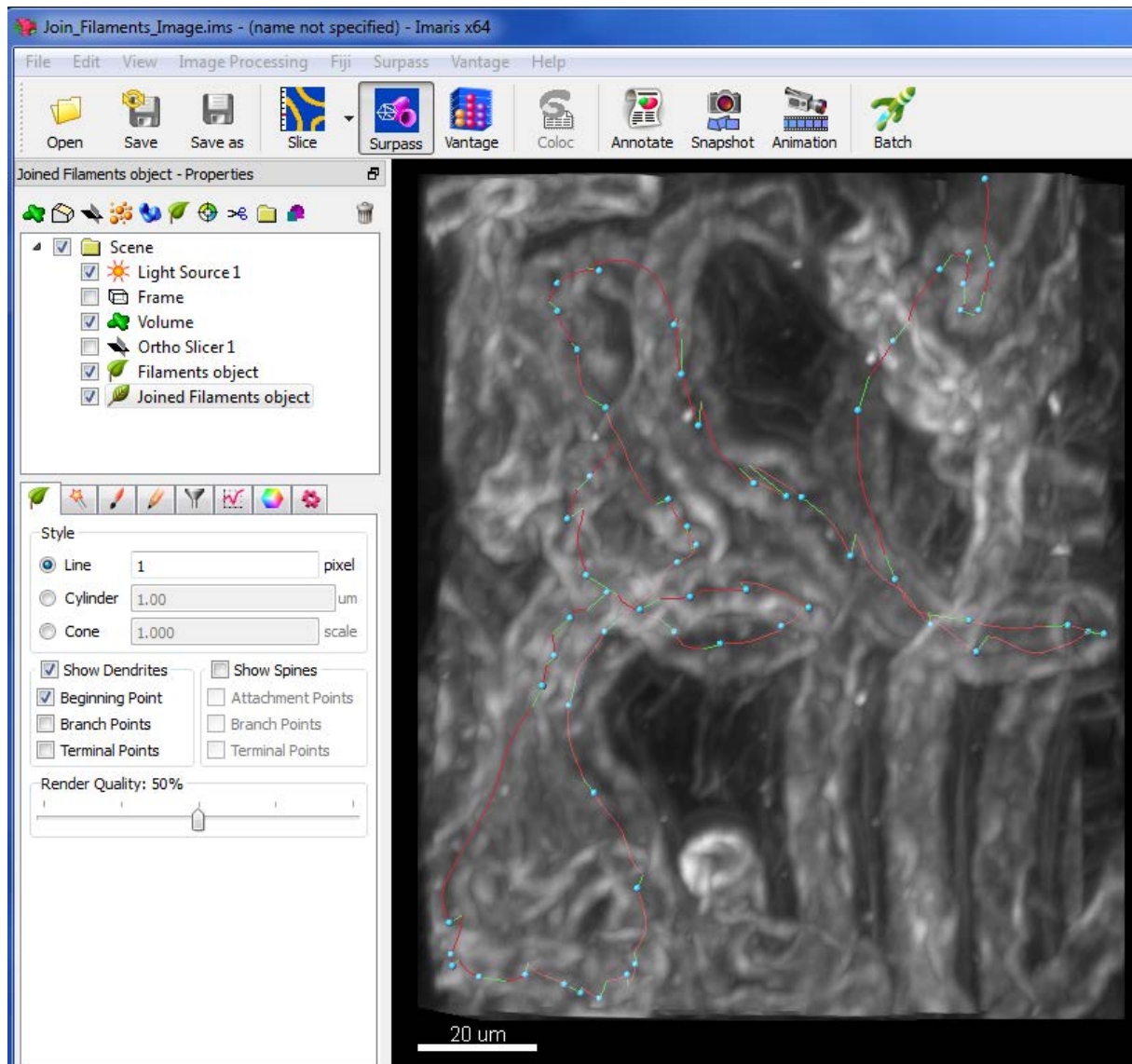**2) Meaningful screenshot that illustrate this XTension results**

This function has been successfully used in reconstructing the structure of convoluted tubular segments of kidney nephrons.

"Filament Object" is checked : disconnected filaments are shown.

The button "Join filaments into one filament" runs the function and joins the filaments into a "Joined Filaments object".

The "Joined Filaments Object" includes joining segments between the original filaments (shown in green)

The file "Join_Filaments_Image.ims" is a sample image that can be used to test this XTension.

Rem : The "Ortho Slicer 1" object helps us to follow the structures of interest when we manually draw the consecutive filaments in 3D.