

Light Microscopy and Image Analysis Unit

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Light microscopy and image analysis unit (SEMAIM) provides assistance for all groups and visitors throughout the process of microscopic imaging.

The staff assists researchers in the planning of light microscopy experiments and provides training for the operation of the microscopes and for specific imaging techniques. Additionally, support is provided in the processing, rendering and analysis of the acquired datasets.

Digital camera



Stereoscopes



Direct and inverted fluorescence microscopes



Confocal



Sample Size

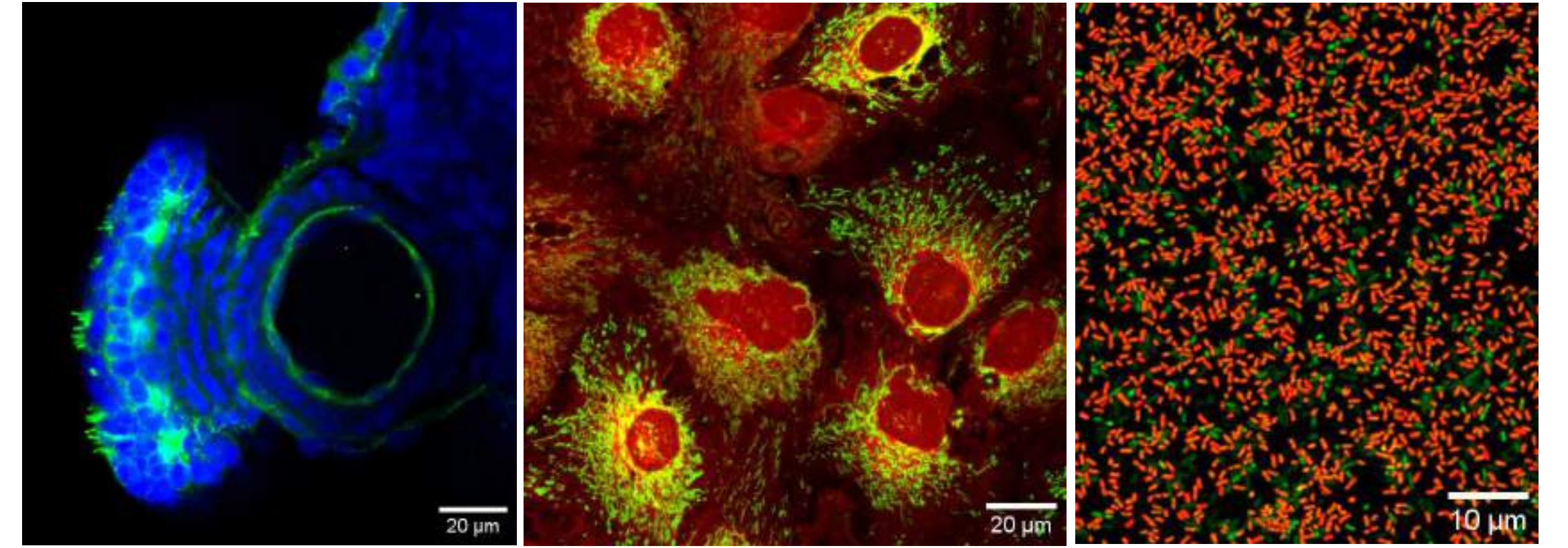


Image Resolution

cm

mm

μm

Lightsheet Microscopy

1. Sample preparation

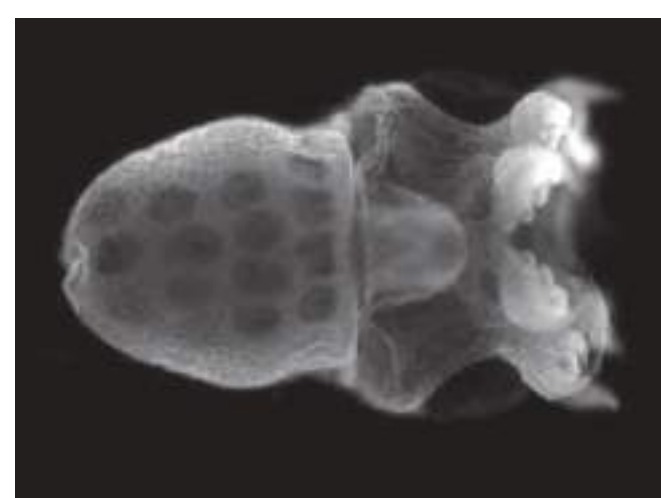
In vivo



Fixation/Depigmentation



Staining

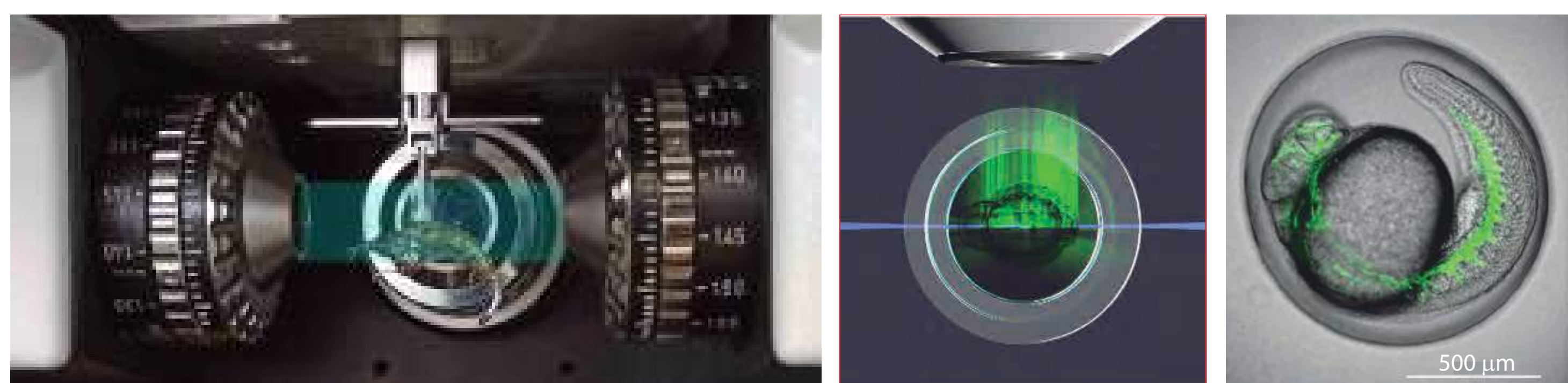


Clearing

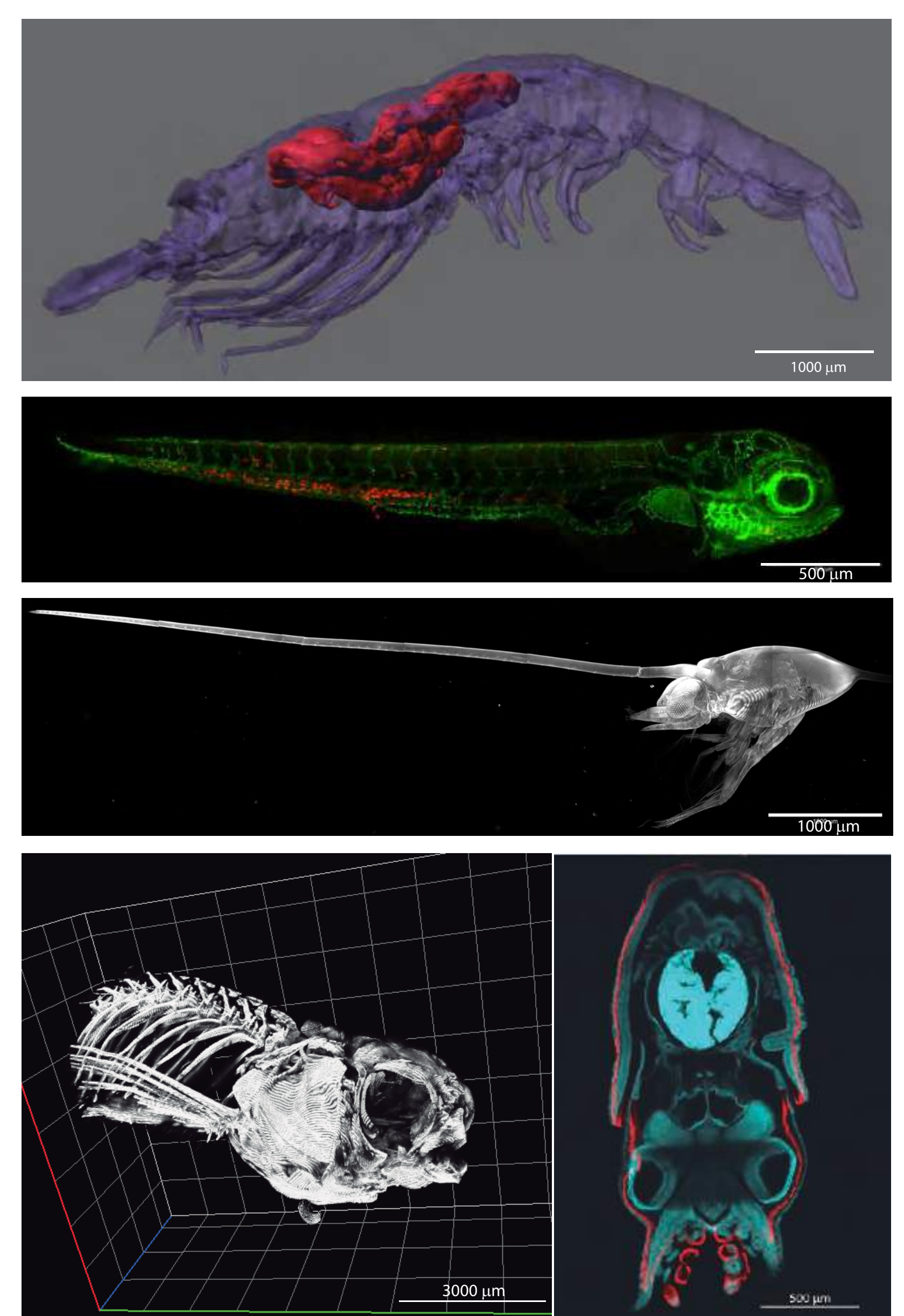


X

2. Image acquisition



3. Image analysis and quantification



The Single Plane illumination technology avoids sample phototoxicity by sequentially illuminating a stack of thin slices of the organism, allowing us to observe living organisms for extended periods of time without photodamage. The 3D imaging capabilities of light-sheet microscopes, in combination with optical clearing techniques, enable visualization of very large, cleared specimens in a non-destructive way within minutes.

The Microscopy Facility also offers training through practical courses. We can advise on the purchase of new microscopy related equipment.

SEMAIM is located on the first floor (Room 214b) and is available Monday-Friday from 08:00 to 15:00. Phone number 986.231930 (ext 860101).