We believe in sharing equipment.

The PICT facility brings together a collection of high-end light microscopy instruments, which are equipped with powerful capabilities, from basic visualization to quantitative analysis.

PICT is involved in an international initiative to raise awareness of QC issues in light microscopy. The first white paper is available on the platform.

The Institut Curie is hosting the May 2021 meeting of the RT-MFM (University of Paris) members of the Photonic Microscopy Technology Network (PMTN) and the FranceBioImaging (FBI) member of the Photonic Microscopy Technology Network (PMTN). The next meeting will take place in Paris, June 24-25, 2021 on the topic "Establishing a co-alignment strategy in microscopy". This event is open to all the researchers, units, labex and platforms that will integrate the PICT@Pasteur platform and the UMR3664/Nuclear dynamics facility and the UMR3664/Nuclear dynamics facility.

Related to this, a second article has been published in the May issue of the journal Nature Methods. The article is available soon as an electronic article in Nature Methods. The article is available for free online and is available for free online.

In optics, photobleaching (sometimes termed fading) is the photochemical alteration of a dye molecule such that it permanently is unable to fluoresce. This is caused by cleaving of covalent bonds or non-covalent interactions that result in irreversible changes to the dye's electronic structure. Photobleaching can be caused by several mechanisms, including the absorption of light, heat, or mechanical stress. Photobleaching is a common issue in microscopy, particularly in studies of living cells, and it can affect the accuracy and reliability of results. To address this issue, researchers have developed various strategies to minimize photobleaching, such as using low-fluorescence intensity, fast acquisition rates, and the use of specialized laser sources. In addition, advances in microscopy technology, such as the use of super-resolution techniques, can help to mitigate photobleaching effects and improve imaging quality.

Did you know that the photobleaching process can also affect the fluorescence of neighboring molecules. For example, the presence of a photobleached fluorophore can cause a decrease in the fluorescence intensity of adjacent fluorophores. This phenomenon is known as photostabilization, and it can be used to advantage in certain imaging scenarios. However, it is important to carefully consider the potential effects of photobleaching when designing experiments and interpreting results.

We hope that this brief introduction to photobleaching has been informative and useful. If you have any questions or need further information about photobleaching, please do not hesitate to contact the PICT or the FranceBioImaging team. We welcome your feedback and suggestions for improving our services.