Tech Times is your newsletter that regularly informs you about the latest updates on the PICT facility. Have a good reading and we wish you all the best during this period of confinement.

The Cell and Tissue Imaging Platform (PICT) welcomes you for your microscopy projects.

PICT is IBiSA certified and is a member of the FranceBioImaging infrastructure.

In short, the PICT platform brings together expertise in:

- Electron Microscopy
- Light-Microscopy
- High-content screening
- Image Analysis

More than 50 high-end microscopes and 21 experts in microscopy and image analysis are available.

Welcome to the UMS2016/US43 Multimodal Imaging Centre at Orsay

Since 1st of January, the UMS2016/US43 Multimodal Imaging Centre brings together the optical, electronic, chemical mapping and image analysis microscopy platforms on the Orsay site.
**Super-resolution Demo:**

Due to the CoronaVirus Covid-19 crisis, the tests on the Vutara system from Bruker are postponed. We will inform you as soon as possible when the demo will be programmed.

**The webinar on sample preparation done on Tuesday 17th of March can be redone later for the people who could not attend to the first one. Please contact Patricia Le Baccon (lebaccon@curie.fr) for more information.**

---

**Doing deep learning with python and Keras based Jupyter notebooks using Colab is demonstrated in a new publication**

https://www.biorxiv.org/content/10.1101/2020.03.20.000133v1

While using Colab for deep learning is not a novel idea and people have been doing this form before, however availability of datasets and links to open notebooks for training on your laptops with an internet connection enables biologists to do some tasks such as restoration, segmentation and label free prediction (predicting labelled images from bright field images) in a low throughput manner.

The code is available here: https://github.com/HenriquesLab/ZeroCostDL4Mic/wiki

<table>
<thead>
<tr>
<th>Network</th>
<th>Paper(s)</th>
<th>Task</th>
<th>Link to example training and test dataset</th>
<th>Direct link to notebook in Colab</th>
</tr>
</thead>
<tbody>
<tr>
<td>U-net</td>
<td>here and here</td>
<td>Segmentation</td>
<td>ISBI challenge or here</td>
<td><a href="#">Open in Colab</a></td>
</tr>
<tr>
<td>Stardist</td>
<td>here and here</td>
<td>Nuclei segmentation</td>
<td>here</td>
<td><a href="#">Open in Colab</a></td>
</tr>
<tr>
<td>Noise2Void (2D)</td>
<td>here</td>
<td>Denoising</td>
<td>here</td>
<td><a href="#">Open in Colab</a></td>
</tr>
</tbody>
</table>
For your projects where images must be in perfect adequacy with your observations, the platform buys more and more expensive objectives. Preserve them!! It is your working tool. Hoping never to have a new damaged objectives like this in a few days...

The Cryo-EM and Cryo-tomography core-facility at Curie-Paris proposes its expertise and instruments for structure determination of proteins by single particle analysis, especially membrane and cytoskeleton proteins. We provide advices for sample preparation, imaging and analysis by negative staining, preparation of cryo-EM grids and writing proposals for access to session to Titans microscopes.

Super-resolution structured illumination microscopy is available on the PICT-LM@BDD.
If you have a project, do not hesitate to contact us at imagerie.bdd@curie.fr
PICT@Pasteur news: The spinning disc
Andor got new lasers!
The spinning disc Andor, located at the Pavillon Pasteur facility, allowing simultaneous imaging of Green and Red fluorescent proteins with a TuCam module, is now equipped with brand new lasers 488 and 561nm thanks to the LABEX DEEP. The old ones have been replaced due to high decrease in laser power. You are welcome to try these new lasers on your living cells!

Are you planning a screening project?
Contact the PICT-Biophenics platform. BioPhenics uses image-based high-content screening assays to evaluate multiple biochemical and morphological parameters in cells. Its technology allows tracking phenotypes at the cellular and subcellular levels under various perturbing conditions (chemical and siRNA collections).

Learn more about optical microscopy!
Visit our web page with links to educational resources.
You need help analyzing your images!

Contact the members of the platform by email. They will be able to advise you even during the confinement period.

Which microscopes are available on the platform?
It is easy, just go to our website.

The demonstration of the Keyence digital microscope took place in early March at the PICT@BDD.

The Institut Curie is hosting the Nikon Imaging Centre since 2007. More information here.

You have just published an article with microscopy data.... Congratulations! Don't forget to thank the PICT-IBiSA platform member of FranceBioImaging (example of acknowledgements here).
A big thank you to all the researchers, units, labex and institute that funds and/or helps us to finance the platform's equipment.

"We believe in sharing equipment".