

**Training in biological imaging in Europe:
an overview from the Euro-BioImaging Project (WP7 Training)**

**Fabrice P. Cordelières^{1,3}, Caroline Thiriet^{1,3}, Claire Herzog^{1,3},
Jean Salamero^{2,3} and Daniel Choquet^{1,3}**

¹ **Bordeaux Imaging Center, Bordeaux France**

² **Cell and Tissue Imaging Facility, Institut Curie, Paris, France**

³ **France Bio Imaging, Paris, France**

E-mail: fbi-training@france-bioimaging.org

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ABSTRACT:

Euro-BioImaging (EuBI) is a pan-european research infrastructure that will provide open access, services and training to a broad range of state-of-the-art biological and medical imaging technologies. During EuBI interim activities, EuBI Work Package 7 aims at preparing the general coordination of the EuBI training activities, in particular the set-up of the training course portfolio for user and core facility staff, including both on-site and online training activities.

In order to identify both existing trainings and training sites, a first call was launched in 2016. Out of the 29 Nodes Candidates, 59 on-site training were registered, 53 in biological imaging and 6 in medical imaging. Both hard (rather technical) skills and soft (rather managerial) skills were covered (76% vs 13%, respectively). Overall, this feedback allowed WP7 to build an initial training portfolio, soon to be sorted and made available. Procedures are currently being discussed and built in order to evaluate their integration to the Web Access Portal (WAP), a unique access point to the EuBI offer of services.

Aside from on-site training, e-learning is another way to enhance both end users and CFS knowledge. Means of implementing a EuBI virtual training platform are being evaluated by WP7. While e-learning is planned as a mean to evaluate new facility users' knowledge before they access an EuBI facility and help them get familiar with the required key concepts, more advanced content should be accessible for CFS, as part of a long-life training scheme. Technical aspects of the e-learning platform implementation are being explored in close collaboration with the Global Bio Imaging project (GBI), and the MyScopeTM tool (<http://ammrf.org.au/myscope/>) developed by Australian Microscopy and Microanalysis Research Facility, is currently being tested.

Imaging, both biological and medical, is also a highly dynamic field where high technicity is required, hence the need for the CFS to keep up with new materials and methods, and foster exchange and emulation within the imaging community. The identification of emerging technologies and the concept of technological watch are thus crucial. Also, the biological imaging training offer broaden out, with the success stories of innovative forms of specialized training such as the shadowing programs operated by GBI and both the German and the French bioimaging networks (GerBI and RT-MFM), that allows a CFS to visit another facility to learn a new methodology, or MiFoBio, a French summer school that dedicates more than half of its program to hands-on sessions.