IMMUNEMAP FORM for the Immunology Challenge

Thank you for choosing to participate in the Immunology Challenge. Please complete the fields below, and we will contact you to confirm the successful receipt of all your submitted data.

Name and Surname:

E-mail address:

# INFORMATION RELATED TO THE EXPERIMENT

*You can write the general information related to a specific experiment. In the “Acquisitions” session, you will be able to provide us with the specific information for each acquisition*

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| Name of the experiment\**(please write it with the keywords of your experiment. E.g.: IFN-γ production by NK cells)* |  |
| Acquisition date\*(*When the experiment was performed, mm/dd/yyyy*)  |  |
| Organization\**(example: IRB, Institute for Research in Biomedicine, Bellinzona, CH)* |  |
| Microscope\* | Microscope name\*:Number of lasers\*:Manufacturer\*:Description: |
| Model\*(*please, specify here the experimental procedure used to prepare the samples. E.g.: Model used for Popliteal lymph node based on Mempel 2004, or any other not standardized procedure used)* | Name\*:In vivo, in vitro, explant\*:DOI or link *(related to the experimental procedure used):*Description\*:  |
| Author (one or more)\**(the information of the person who performed the experiment and/or took the acquisitions)* | First name\*:Last name\*:e-mail\*: |
| Rationale\*(please, provide the purpose of this experiment) |  |
| DOI or link:*(if it is available, insert here the references related to these videos or the DOI of the publication)* |  |

# IMAGING PROTOCOL

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| *Table:**We aim to include in this table all the objects visible in the experiment acquisitions, so anyone can understand what they are seeing.**There is a default list of imaged entities: immune cell, drug, virus, bacteria, structural tissue, vehicle, tumour.* *These entities are subdivided into classes, e.g., different types of immune cells (B cell, eosinophil…), virus (influenza, HIV…), structural tissue (collagen, epithelial, blood vessel, stromal cell), vehicle (nanoparticle, liposome, antibody), tumour (lymphoma, melanoma, breast cancer), etc.**Then, we specify the labelling details: i) labelled molecule/structure, ii) labelling method (reporter gene, dye, antibody, autofluorescence…) and iii) fluorophore. It is possible to include several labelled molecules/structures per imaged entity. For example, for dendritic cells, you could be using CD11C and CD11B, whereas for B cells it could be B220 and CD19.**Additionally, we specify the channel(s) in which each fluorophore is visible, and the laser and filter corresponding to each channel (options pre-defined when creating the microscope).**It is possible to include additional tags (e.g., strain) and provide further details in the description (optional field).**Example:*

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| **Imaged entity** | **Class** | **Molecule/ Structure** | **Labelling Method** | **Fluorophore** | **Ch1** | **Ch2** | **Ch3** | **Other tags** |
| Immune cells | Neutrophils | CK6 | Reporter gene | ECFP |  |  | x | CK6-ECFP |
| Cytoplasm | Dye | CMTMR | x |  |  | celltracker |
| Virus | HIV | Gag | Reporter gene | GFP |  | x |  |  |
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| **Imaged entity** | **Class** | **Molecule/ Structure** | **Labelling Method** | **Fluorophore** | **Ch1** | **Ch2** | **Ch3** | **Ch4** | **Other tags** |
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# ACQUISITIONS

*It is possible to create one or more groups (e.g., control, treatment…) to organize the acquisitions. Each group is defined by its name. Additionally, it is possible to add a description and other tags. We assign each acquisition to its corresponding group.*

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| ACQUISITION ID (original file name)\* |  |
| Group(*optional, e.g.: control, treatment…)* |  |
| Name*(please write it with the keywords of your acquisition. E.g.: acquisition 10 hours after vaccination; acquisition that shows the extravasation of... ):* |  |
| Sample ID (*an integer number to identify mice, microwells*…): |  |
| Area of acquisition \* (for in vivo/explant, more specific than imaging site. E.g., imaging site could be popliteal lymph node and area of acquisition could be medulla): |  |
| Gender (optional; M/F): |  |
| **Technical details \***Please specify here all the relevant technical details related to this acquisition | **dt** (expressed in seconds):**Pixel sixe x, y, z**Remember to specify the unit of measurement used, for example, pixels or micrometers (µm). |
| **Description/Annotations \***Please provide here a description of the acquisition. *E.g. : intravital imaging of NK cells in healthy mouse liver by intravenous administration of NK1.1 antibody(red) using two-photon microscopy.*Here is also possible to add some **notes** related to specific events shown in the acquisition (such as swarming, patrolling etc..) |  |