RADIOLOGY REGISTRY

The Radiology Registry has been designed to collect magnetic resonance (MR) studies from different sources. The aim of the registry is to find a correlation between imaging biomarkers and histopathology and molecular profiles of cholangiocarcinoma (CCA) and primary sclerosing cholangitis (PSC). Data will be available for all contributors to the registry.

Registry design
All MR images will be stored in a Network Attached Storage (NAS) equipped with a dedicated software for the management of data sharing (https://idp.mycloud.com). Each contributor will be provided with a user name and password to securely access the NAS.
MR images will be analyzed using a dedicated software (slicer 3D) for the extraction of texture features. Texture features will be analyzed using a machine learning algorithms for data mining tasks (WEKA). The aim of this last step is to identify and validate an algorithm for the characterization of CCA and PSC.

Access to the registry
To access the Radiology Registry you need to create an account. Please send an email to marco.rengo@uniroma1.it specifying your email and the center you are representing.
You will receive an email to create a password to access to the storage (https://idp.mycloud.com). Once logged in you will have access to the shared folder with MRI datasets and radiomics features.

MR imaging protocol
Since MR protocols for CCA and PSC may be variable in different centers the following sequences will be required:
-    SSTSE T2 weighted
-    Diffusion weighted (B0 and B800/1000)
-    CPMR T2 weighted (MIP or 3D)
-    GRE T1 weighted (unenhanced, arterial, portal and equilibrium acquisitions)
The use of intravenous contrast media (CM) is required. Images acquired after the iv injection of any paramagnetic gadolinium chelate CM will be included (Gd-EOB-DTPA, Gd-BOPTA, Gd-DOTA, Gd-HP-DO3a).

Imaging anonymization
Images should be anonymized before the uploading on the NAS. Anonymization can be performed using dedicated software. For MAC users HOROS (https://horosproject.org/download-horos/) is recommended, while for Windows or Linux users Radiant (https://www.radiantviewer.com/products/radiant-dicom-viewer-standard/) is the software to be used. Both are open source free software.

Inclusion criteria
MR datasets, corresponding to the protocol described above, will be included in the registry.
For each dataset will be required also clinical data for the Clinical Registry including patient's survival and the histopathology.

Case report form (CRF)
For each dataset a CRF should be uploaded. A specific CRF will be provided to any contributor.