Describes the actual image and its m The acquisition date of the Image. AcquiredDate A multi-line description for the image.

A short description for the image. This would be used to, for example, select Description e image from a list. ImagingEnvironment Describes the environment that the biological sample was in during the experiment. AirPressure in millibars[mbar].
%CO2 as a percent-fractions from 0.0 to 1.0 [%]. AirPressure CO2Percent Humidity as a percent-fraction from 0.0 to 1.0 [%].
Temperature [degrees Celsius]. Humidity Temperature Describes any settings on or around the objective ObjectiveSettings Describes any semings on or around the conjective An adjustable ring on the objective that corrects for changes in immersion medium refractive imdex. Arbitrary scale and unitless. A description of a Medium used for the lens. e.g., Oil, Water, WaterDipping, Air, Multi, Glycerol, Other CorrectionCollar Medium RefractiveIndex Refractive index is that of the immersion media Defines the location and paramater sof the Pixels, the actual binary image DimensionOrder The order in which the individual planes of data are interleaved. e.g., XYZCT, XYZTC, XYCTZ, XYCZT, XYTCZ, XYTZC PhysicalSizeX Physical size in x, y, z of a pixel in microns[um] PhysicalSizeY PhysicalSizeZ SizeT Dimensional size x, y, z, c, t of pixel data array SizeX SizeY SizeZ Used for time series that have a global timing specification instead of per-timepoint timing info, e.g., a video stream. [s]. The variable type used to represent each pixel in the image. e.g., int8, int16, int32, uint8, uint16, uint32, float, bit, double, complex, double-TimeIncrement Туре RinData If the pixel data is stored dierctly in the XML it is enclosed in BinData TiffData If the pixel data is stored in an OME-TIFF file it is described by TiffData Flements FirstC FirstT The TiffData element describes how the TIFF IFD numbers are mapped to the Pixels. FirstZ IFD PlaneCount The TiffData UUID and Filename are used for multi-file datasets to maintain connections between the files шш AcquisitionMode describes the type of microscopy performed. e.g., WideField, LaserScanningMicroscopy, LaserScanningConfocol, SpinningDisKcfoncol, SlitScanConfocol, MultiPhotonMicroscopy, StructuredIllumination, SingleMoleculeImaging, TotalInternalReflection, FluorescenceLiteines, SpectralInaging, FluorescenceLiteines, SpectralInaging, PluorescenceLiteines, Operation Spectroscopy, Second Harmonic Generalization (National Conformation Conformati AcquisitionMode NearFieldScanningOpticalMicroscopy, SecondHarmonicGenerationImaging, Other A color used render this channel The technique used to achieve contrast. e.g., Brightfield, Phase, DIC, HoffmanModulation, Obliquelllumination, PolarizedLight, Darkfield, ContrastMethod Fluorescence, Other
Emission wavelength of excitation for a particular channel, in nanometres **EmissionWavelength** ExcitationWavelenath Excitation wavelength of excitation for a particular channel, in nanometres The name of the fluorophore used to produce this channel. The method of illumination used to capture the channel. The method of illumination used to capture the channel. e.g., Transmitted, Epitluorescence, Oblique, NonLinear, Other A short name for the channel, used to, for example, identify the channel IlluminationType Name NDFilter Specifies the combined effect of any neutral density filters used. [% **Transmittance**1 Specifies adjustable pin hole diameters for confocal microscopes (microns PinholeSize (uml). PockelCellSetting Amount the polarization of the beam introduced by Pockel Cell, if any. The number of samples the detector takes to form each pixel value. SamplesPerPixel Represents the number of pixels that are combined to form larger pixels. e.g., 1x1, 2x2, 4x4, 8x8, Other The Gain of the detector. The Offset of the detector. Binning Gain Offset ReadOutRate Voltage Detector read speed (MHz)
The Voltage of the detector. volts[V] LightSourceSettings Attenuation Wavelength The Attenuation of the light source. [%] The Wavelength of the light source. [nm] DeltaT Elapsed time since the beginning of the experiment [s] ExposureTime PositionX Elapsed time during image recording. [s] The x, y, z position of the stage. [µm] PositionY Position Z StageLabel Short name for this stage location This would be used to, for example, identify the channel from a list. Name X Y The labeled x, y, z position of the stage. [µm]

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