Source: https://docs.google.com/spreadsheets/d/1Ck1NeLp-ZN4eMGdNYo2nV6KLEdSfN6oQBKnnWU6Npeo/edit?gid=1023506919#gid=1023506919
Publication: https://www.nature.com/articles/s415 https://doi.org/10.1038/s41592-021-01166-8

Task 1: Do you understand all of the Attributes? (can happen concurrently with Task 2)

Task 2: Categorize the Attributes:
0: optional/unnecessary
1: necessary to understand the data
2: necessary for data governance (long-term reproducibility)
3: missing in this template (add your new attributes in the right category)

Task 3: Fill columns at the end: Which of the Attributes are:
0: constant for most of your research (i.e. they could be filled by default)
1: automatically saved in the data file
2: something you always document in your Lab Notes
3: (usually) missing in your documentation

Task 4: Fill the form for one of your datasets. How long does it take if you (a) leave out and (b) take into account the constant and automatic ones?

Module	Attribute	Description	Example
Study *Study (paper/project)* that this image dataset belongs to	**Study type**	Type of the overall study, which may include other imaging and/ or non-imaging data	Fluorescence Microscopy Live Dead assay
	General dataset info	Authors, publications, licenses etc	Author: Christian Müller
	Imgage data description	Description specific to this image dataset	Viability over time for bacteria encapsulated in hydrogel
	Imaging method	Technique used to acquire image data	LSM
Biosample	**Identity**	Internal unique ID	XYZ
	Biological entity	What is being imaged	Bacteria
	Organism	Species (multiple possible)	Cornyebacterium Glutamicum
	Intrinsic variable	Intrinsic (e.g. genetic) alteration if applicable	Wild Type
	Extrinsic variable	External biosample treatment (e.g. reagent) if applicable	X hours in Brain-Heart Infusion
	Experimental variables	What is intentionally varied (e.g. time) between multiple entries in this study component	time
Specimen *There may be multiple specimen of the same Biosample*	**Experimental status**	Test/ control	Control
	Location in Plate/Dish/Biosample	Plate/dish coordinate or tissue location	A1
	Preparation method	Preparation protocol for each particular specimen	(Link to existing protocol)
	Signal/contrast mechanism	How is the signal generated by this sample	Fluorescence
	Channel - content	Specific specimen staining (e.g. IEM, DAB)	Live Dead
	Channel - biological entity	What molecule is stained	Channel 0: Propidium Iodide, Channel 1: MycoLight 520
Image acquisition *(linked to Specimen)*	**Instrument attributes**	Details about instruments used	Zeiss LSM880 Airyscan NLO, Firmware..., Version ..., Calibration ...
	Image acquisition parameters	Image acquisition details	Objective, Detector, Exposure, ...
Image data *(result of Image acquisition, or processing of Image data)*	**Type**	Primary image/processed image/segmentation	Primary
	Format & compression	File type	CZI
	Dimension extents	Volume in pixels: x, y, z, tilts	...
	Size description	Physical size of image volume in x,y,z & units (pull-down), OR magnification	...
	Pixel/voxel size description	Physical size of pixels in x, y, z & units (pull-down)	...
	Channels	How are individual channels represented in the image	Channel 0: Red, Channel 1: Green
	Image processing method	Image registration, other processing applied to this dataset	None
Analysed data	**Analysis result type**	Numerical analyses, segmention (non-image), categorical features/phenotypes	Categorical Segmentation
	Data used for analysis	Specific feature set used for analysis (e.g. volume measurements, locations of features)	Color, Volume
	Analysis method and details	Analysis method	Otsu Threshold, Watershed