

Types of data generated by the Institut Pasteur research projects

The nature of the data to be generated by the research project and their format should be described precisely in the Data Management Plan. We provide below a list of types of data that can be generated at the Institut Pasteur, to help you respond correctly.

Types of data in the biomedical field

There is no comprehensive classification of data types in the biomedical field. Data typologies can be described at different levels of granularity.

Examples of data types Low level of accuracy	Examples of data types Higher level of accuracy
Genomic data	Raw sequencing data
Proteomics data	Protein sequence
Glycomics data	X-ray crystallography data
Lipidomic data	Mass spectrometry data
Transcriptomic data	PCR data
Molecular structure data	NMR spectroscopy data
Molecular interaction data	Immunological data
Cellular data	Flow cytometry data
Physiological data	Neuroimaging data
Phenotypic data	Functional genomics data
Clinical/Epidemiological data	Questionnaire data

Data formats

These different types of data can be found in different formats:

Data Formats	File format
Text	TXT, DOCX, RTF, PDF
Images	JPEG, GIF, TIFF, PNG, NIfTI, VTK
Databases	Oracle, MySQL
Audio files	WAV, MP3
Video files	AVI, WMA, MPEG-4
Source code	Script, Java, C, C++
Structured graphics	CAD, CAM, VRML

Spreadsheets	XLS, CSV
Native format of the devices	FCS, FASTQ, ANDI-MS, CDX, NIFTI...
Non-computerized data	

What is the difference between open and closed formats?

Open formats should be preferred for the conservation and sharing of data.

Open format	Closed format
The functional and technical specifications are public and available free of charge (or at low cost)	The functional and technical specifications are not public
There are no legal restrictions to its free use	Legal restrictions preclude its use (patent, copyright)
A document saved in an open format is independent of the software used to create, edit, read, and print it. Open formats therefore allow data interoperability .	The format can be read only with a specific program or software suite
It is maintained by a nonprofit organization	Closed formats are often proprietary

Examples of open and closed formats

	Closed format	Open format
Text	DOC, PAGES	ODT, TXT
Spreadsheet	XLS, NUMBERS	ODS, CSV
Video	AVI, WMV	MP3, MP4, MKV
Image	PSD, JPEG 2000	PNG, BMP, JPG, GIF
Archiving – compression	RAR	ZIP, TAR
Presentation	PPT	ODP



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