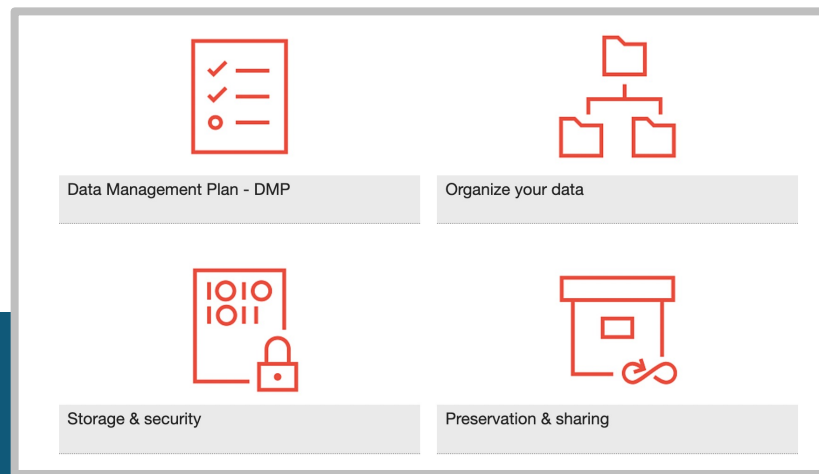




ORGANIZE YOUR DATA FOR LONG TERM STORAGE (LTS) AT UNIL

Cécile Lebrand, PhD

Responsable du service de soutien pour la gestion des données de recherche FBM
UNIL/CHUV- BiUM

Unil
UNIL | Université de Lausanne

Faculté de biologie et de médecine



NOUVEAUTÉS OPEN DATA

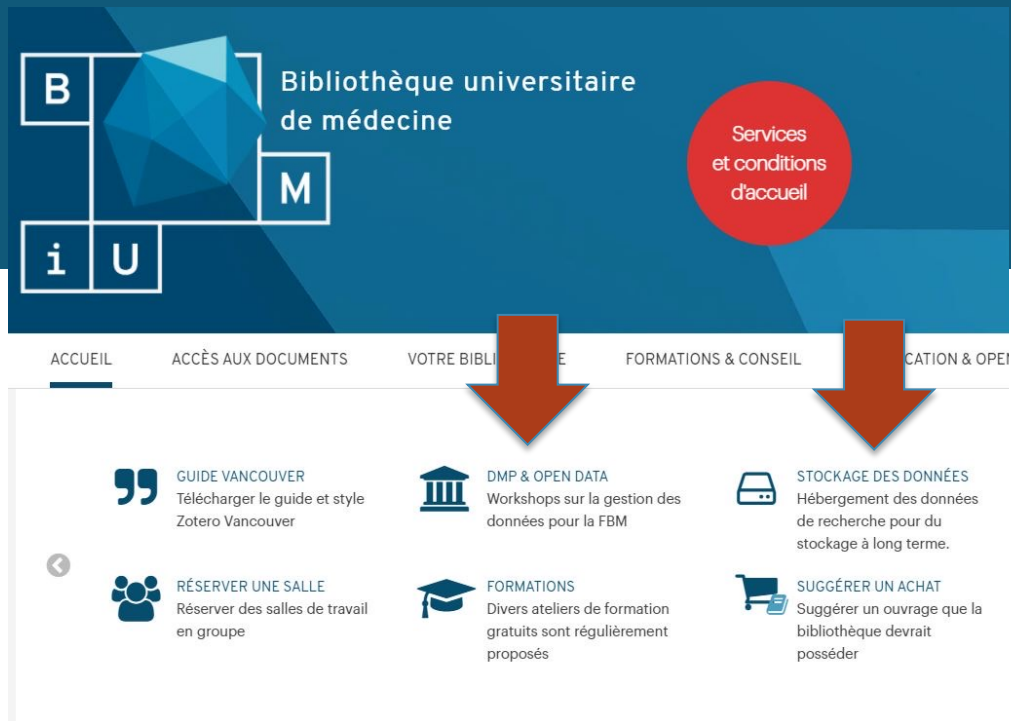
DIRECTIVE GDR

[Directive UNIL 4.5 – Traitement et gestion des données de recherche](#)

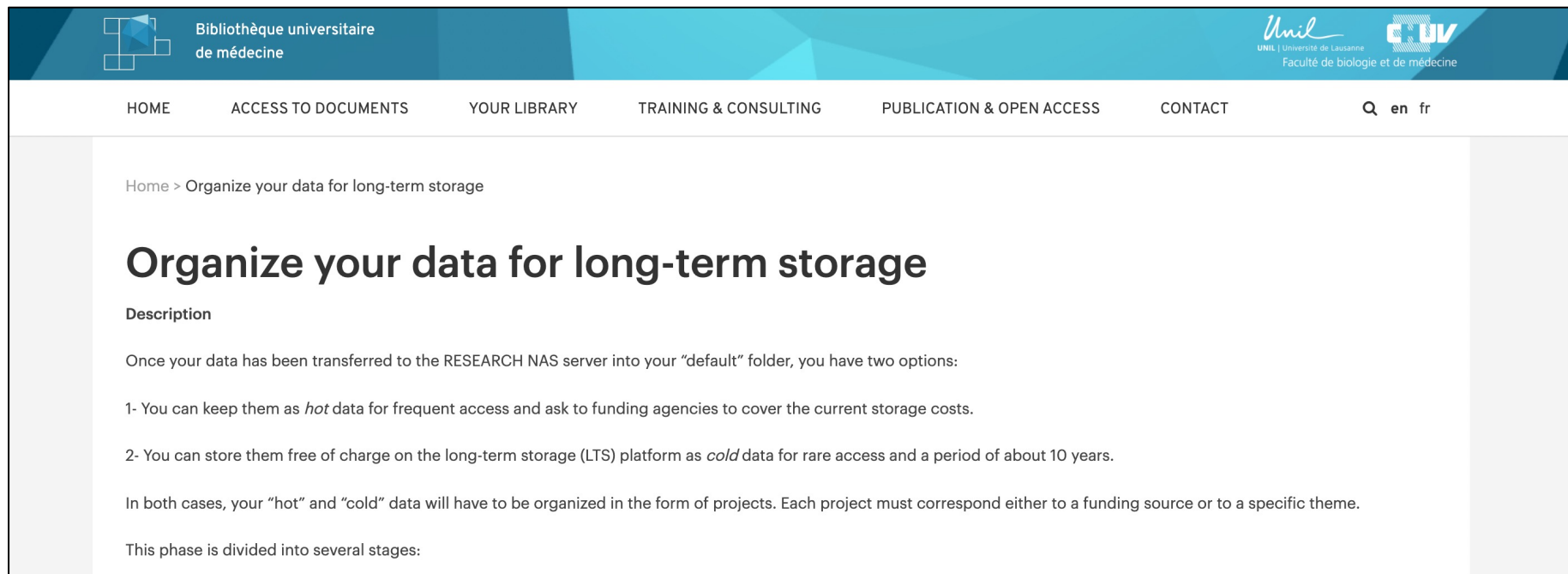
Long Term Storage (LTS) characteristics

- Under the responsibility of the PI.
- Free of charge (with security and backup)
- Time limit for storage duration (at minimum 10 years for published data) with possible extension (1x).
- Restricted access (limited number of accesses to data on LTS and on demand).
- Effective organization of your data
- Production of a Readme file (document describing the dataset content) for each individual futur TAR subdirectory
- Naming rules for (TAR) subdirectories in the LTS directory

OPEN SCIENCE NEWS AND INFORMATION ON THE FIRST PAGE OF THE BIUM WEBSITE



BiUM web page dedicated to Long Term Storage (LTS)



Bibliothèque universitaire de médecine

Unil
UNIL | Université de Lausanne
Faculté de biologie et de médecine

HOME ACCESS TO DOCUMENTS YOUR LIBRARY TRAINING & CONSULTING PUBLICATION & OPEN ACCESS CONTACT

Q en fr

Home > Organize your data for long-term storage

Organize your data for long-term storage

Description

Once your data has been transferred to the RESEARCH NAS server into your “default” folder, you have two options:

- 1- You can keep them as *hot* data for frequent access and ask to funding agencies to cover the current storage costs.
- 2- You can store them free of charge on the long-term storage (LTS) platform as *cold* data for rare access and a period of about 10 years.

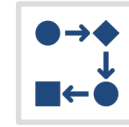
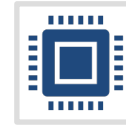
In both cases, your “hot” and “cold” data will have to be organized in the form of projects. Each project must correspond either to a funding source or to a specific theme.

This phase is divided into several stages:

In French: <https://www.bium.ch/processus-dhebergement-donnees-de-recherche-stockage-a-long-terme/>

In English: <https://www.bium.ch/en/process-of-hosting-search-data-for-long-term-storage/>

Long term Storage of « cold data »



- PI contact the Ci [via the NAS DCSR dashboard](#) before creating a new project directory on the Long-Term Storage Platform (LTS).
(see slides p. 7-10)

- E-mail will be sent directly to [Cécile Lebrand](#) (UNIRIS) after selecting «making a long term storage request» on the NAS DCSR dashboard.

- C. Lebrand will contact you to make an appointment within 7 days

- C. Lebrand will provide you with guidance through the process of reorganizing and describing your data in the form of explanatory documents called [readme file](#).

- Reorganize your data and eliminate obsolete data.
Research data must be organized around a given project on the LTS (matched with a funding, a specific theme, a publication, ...).

- Complete a [readme file](#) for each distinct data subdirectory and ask [Cécile Lebrand](#) for final revision who should provide you a feedback within 15 days.

- In the event your *readme* file is not considered complete enough as to understand the nature of the data set, C. Lebrand will send you an add-in request.

- Once your *readme* file and file reorganization has been approved by C. Lebrand and UNIRIS

- For FBM_MOV folder create a new project for archiving [via the NAS DCSR dashboard](#) and transfert your data to the LTS subfolder using the copy/past function.

- C. Lebrand will perform a final check and will validate the long term storage of you files directly via the platform.

The Computer Centre – DCSR will transfer your data to the LTS platform with your *readme* file(s) included at the root of each moved data subdirectory

Use the DCSR dashboard interface
to ask for Long Term Storage (LTS)

Research resource requests

 Sign in



Connect to your NAS DCSR dashboard via your SWITCH
UNIL account

<https://conference.unil.ch/research-resource-requests/>

Use the DCSR dashboard interface to ask for Long Term Storage (LTS)

Your requests



Request date	Project	Status	Actions	
02 Mar 2022 17:01	cc_callosum	VALIDATED	Details	Edit
			LTS ▾	Users
			→ Making a Long Term Storage (LTS) request	
			← Retrieving data from Long Term Storage (LTS)	

<https://conference.unil.ch/research-resource-requests/>

Contact UNIRIS directly via the dashboard before creating a new project directory on the LTS Platform

Make an LTS request (Long Term Storage) - CC callosum study

Make an LTS request (Long Term Storage)

To validate your request for Long Term Storage (LTS) of some or all of your research data on magnetic tape, please click on the "Submit" button below. If you already have a specific request or question, you can, if you wish, leave your comment(s) below.

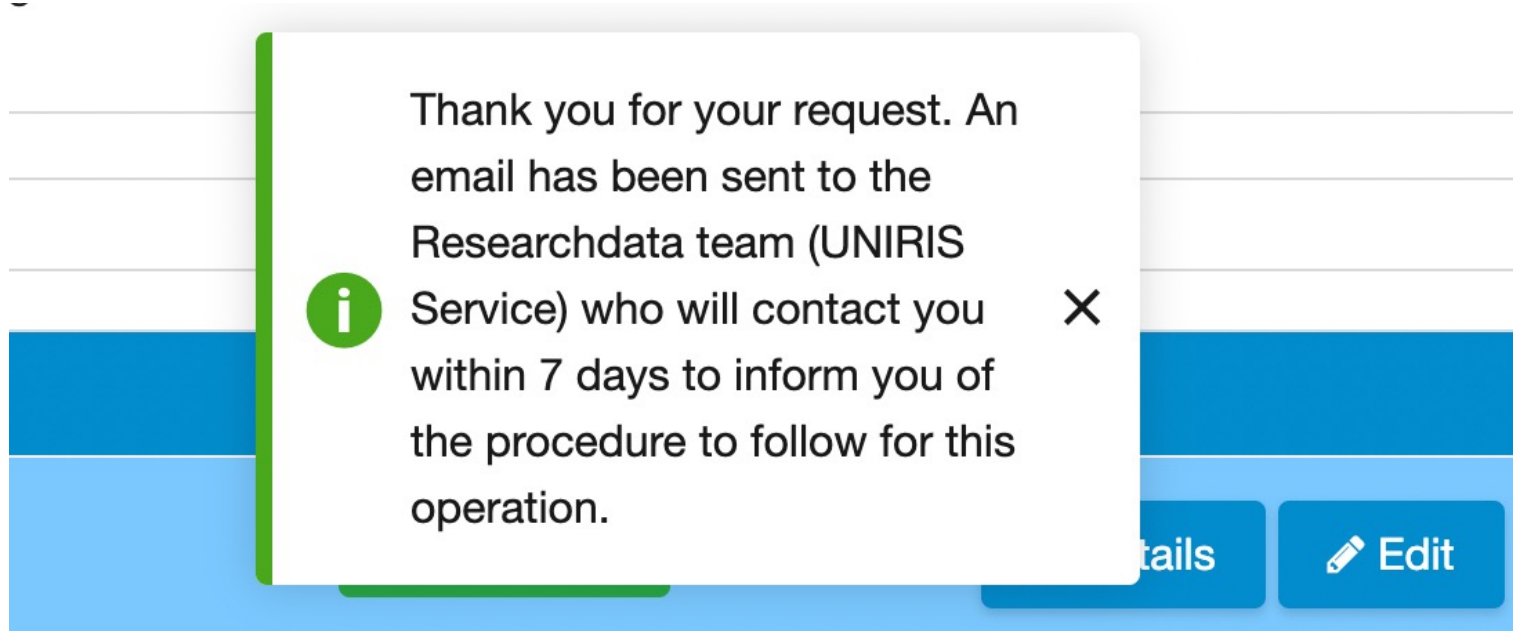
Add a commentary if necessary and click on the send button

Cancel

Send

This button opens a prefills e-mail that will be sent directly to C. Lebrand via the address researchdata@unil.ch.

E-mail send directly to UNIRIS



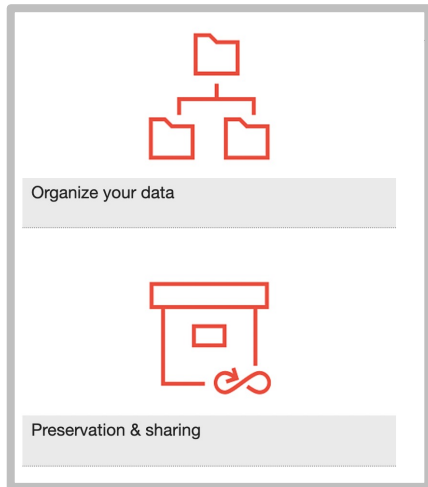
The prefill e-mail will be sent directly to C. Lebrand via the e-mail address researchdata@unil.ch.

UNIRIS help for organizing your data for long-term storage

C Lebrand will contact you to make an appointment within 7 days.

She will provide you with guidance through the process of reorganizing and describing your data in the form of explanatory documents called readme files.

During this process, you will be able to give a temporary access to your data stored on the DCSR NAS to C. Lebrand via the interface on the homepage and using the e-mail address: cecile.lebrand@unil.ch



Organize your data for long-term storage

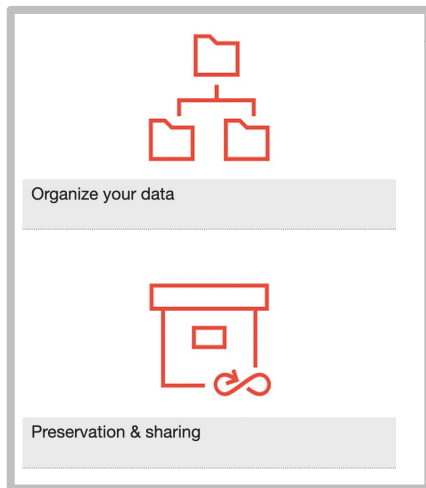
Reorganize your data and eliminate obsolete data.

Research data must be organized around a given project

(matched ideally with a funding, a specific research theme, a publication etc.). Grant_Timeperiod_archive / ResearchTheme_archive / Publication_archive / Lab_activity_material_archive

The size of the data volume to be archived is limited to 5 TB per subdirectory (TAR folder) in the LTS directory. The DCSR will create the zip TAR folders.

Each TAR subdirectory has to comply to naming rules and should be accompanied by an independent readme file. One possibility is to create a general Readme Template that can be shortly adapted to each individual TAR subdirectory.



Naming rules for individual (TAR) subdirectory in the LTS directory

The length of the folder name must not exceed a maximum of 40 characters according to the rules below

- Numbers from 0-9
- Letters a-z
- Letters A-Z
- Hyphen (-) OK but not at the beginning or end of the directory name
- Underline (_) OK but not at the beginning or end of the directory name
- No white spaces
- No accented characters or symbols

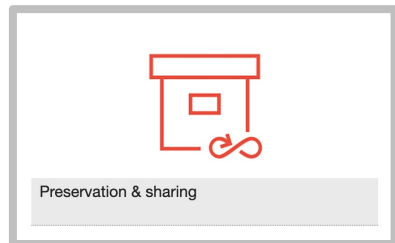
The naming rule only applies to the first sub-folders in the LTS directory. The Tar archive files created from these directories will have the same name. Within these directories the names of the files and data directories are free. However, no personal names should be used.

Readme File

Name Research Project - Data Description

Les (*) dénotent un champ obligatoire

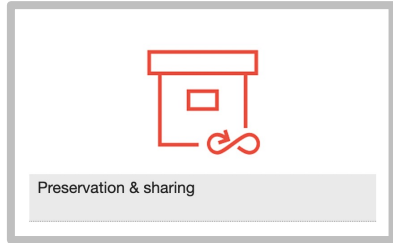
General information :



- **Title of the research project (*) :**
- Funding agency(ies) (UNIL, SNSF, EU, etc.) and grant number:
- **Dates covered by the project (period) (*) :**
- **Name, role and contact details of the PI (OrcID if available) (*) :**
- Name of the editor of this Readme (if different from the PI) (*) :
- **Date of writing of this Template (*) :**
- Document version

Readme File

Your data and their links



- **General description of the data set (5 lines max) (*) :**

- Nature: raw versus, analysed data
- Mode of collection: experimental, observational
- Format: (un)structured text, spreadsheet, image, video, audio, database, map, etc...

- **Contains personal data (yes/no) (*):**

***Donnée personnelle** « Toute information qui se rapporte à une personne identifiée ou identifiable » (LOI 172.65 sur la protection des données personnelles ([LPrD](#))).*

*« **personal data** » means any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person ([GDPR 2016](#))*

- **Among the personal data, contains sensitive data (yes/no) (*):**

Donnée sensible

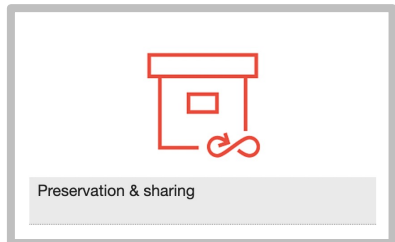
« Toute donnée personnelle se rapportant :

- *aux opinions ou activités religieuses, philosophiques, politiques ou syndicales, ainsi qu'à une origine ethnique ;*
- *à la sphère intime de la personne, en particulier à son état psychique, mental ou physique ;*
- *aux mesures et aides individuelles découlant des législations sociales ;*
- *aux poursuites ou sanctions pénales et administratives. »*

(LOI 172.65 sur la protection des données personnelles ([LPrD](#))).

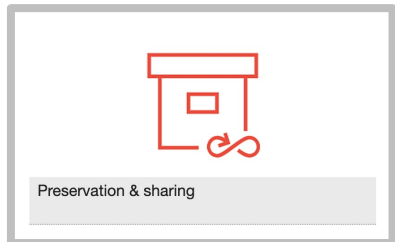
[LongTermStorage_Data_Description_EN](#)

Readme File



- **Are sensitive data encrypted (yes/no) (*):**
- Any legal restrictions applied to the dataset other than the usual contract described in the « Directive du Conseil de Direction UNIL-CHUV du 02.12.2009 relative aux contrats et à la valorisation de la recherche » : [link](#) . If there are any other kind of contracts (IP, patenting, third part contract,...) mentioned it (*).
- **Did these data give rise to publication (yes/no)? And if so, provide the exact references with the DOI ? (*):**
- **Estimated storage period (to be justified if > 10 years)(*). If there are any other kind of legal obligation (e.g. 20 years for data associated to a patent based on the UNIL [directive 4.5](#) or 15 years for clinical data) mentioned it :**

Readme File



Organization

- **Organizational structure of folders and sub-folders (*)**:
- **File naming system (*)**:

Data collection

- **General methods used for data collection (link these information to the description of your materials and methods from your papers if possible) (*)**:

Processing, versioning and quality assurance

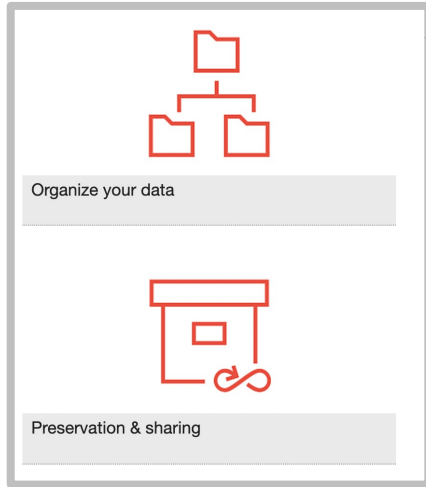
- **Software used for data collection and processing (including version numbers) (*) and associated file format**:

Code books

- **Did you generate a code book or other documentation defining the codes, symbols and abbreviations used in the files (*)**. If yes provide the coodbook file name. If not make a link to the publications with your list of abbreviations.

For FBM_MOV projects only

Create new project to finalize the long-term storage of your files



1. Use the DCSR dashboard interface to ask for new projects space on the DCSR NAS

2. POSSIBLE_ NAMING OF THE NEW PROJECT TO ARCHIVE (EXEMPLES):

- Grant_Timeperiod_archive
- ResearchTheme_archive
- Publication_archive
- Lab_activity_material_archive

Naming for the short title (less than 20 characters) add arc at the end

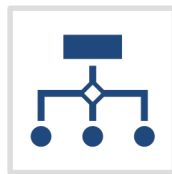
- Grant_Timeperiod_arc

3. Tranfert your data in the LTS subfolder and use the DCRS dashboard interface to ask for LTS migration of your data

Data recovery of TAR subdirectory from the LTS platform in order to work with your data on the NAS DCSR

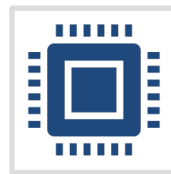


Request at least 7 days in advance.



Limited number of access with the possibility of retrieving data stored in individual LTS TAR subdirectory

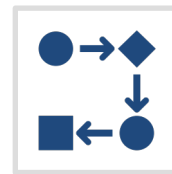
(one request once a month, data stored for at least a minimum period of one month).



No direct access but **official request/ticket to the DCSR via the NAS DCSR dashboard.**

Select « retrieving data from Long Term Storage)

(see slides p 19-21)



Once the request is made to DCSR, the time required to process the demand will depend on the complexity of the data to be processed.

Contact the DCRS via the dashboard to recover data from the LTS Platform

Your requests

Project name / short title



Request date	Project	Status	Actions		
02 Mar 2022 17:01	cc_callosum	VALIDATED	Details	Edit	LTS ▾
			Users		

→ Making a Long Term Storage (LTS) request

← Retrieving data from Long Term Storage (LTS)

<https://conference.unil.ch/research-resource-requests/>

Contact the DCSR via the dashboard in order to migrate your data from the LTS to the DCSR NAS

Recover data from LTS (Long Term Storage) - CC callosum study

Recover data from LTS (Long Term Storage)

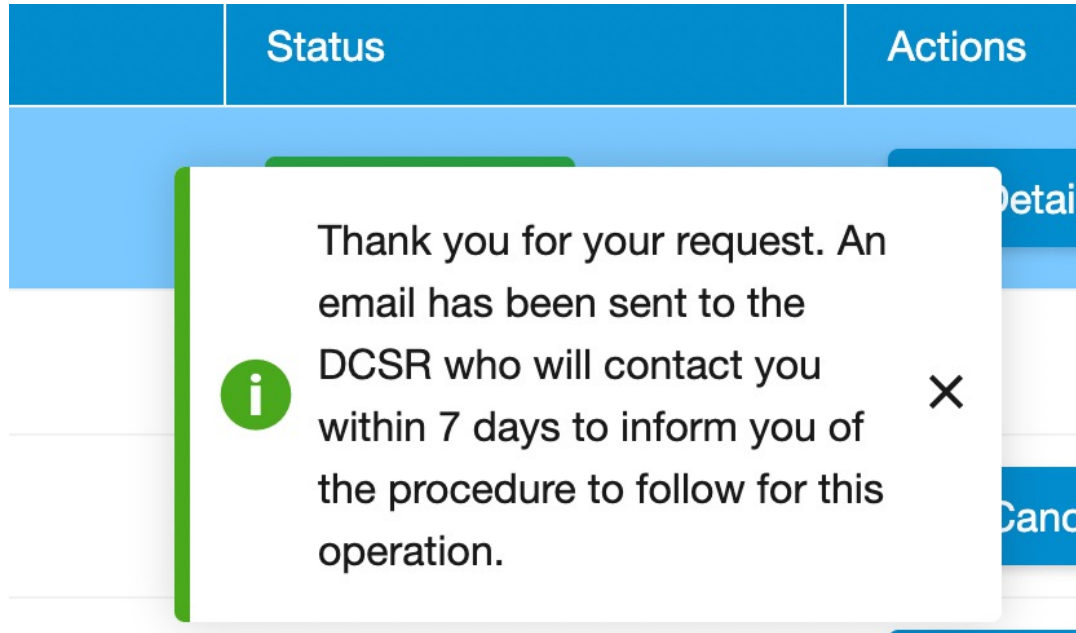
To validate your request to retrieve some or all of your research data stored on magnetic tape (LTS), please click on the "Submit" button below. If you already have a specific request or question, you may, if you wish, leave your comment(s) below.

Your comment here

Add a commentary if necessary and click on the send button

Cancel Send

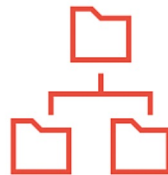
This button opens a prefills e-mail that will be sent directly to the DCSR



- The prefills e-mail will be sent directly to the DCSR
- Once the request is made to the DCSR, the time required to process your demand will depend on the complexity of the data to be processed.



Data Management Plan - DMP



Organize your data



Storage & security



Preservation & sharing

SHARING OUR EXPERTISE ON FAIR DATA MANAGEMENT AND ORD

<https://www.bium.ch/en/publication-open-access/data-management/>

BIUM WORKSHOPS ON DMP AND FAIR DATA/ORD

178 seminars and workshops since 2016
(1841 participants)

- [Personalized training for PIs](#) on demand (DMP for FNS, dataset deposit)
- [FBM Doctoral School Course](#) on Data Management Plan & Open Data in Life Science (BiUM)
- [Elixir- Converge course with SIB/VitalIT](#) on Research Data Management and Data Management Plan for PhD, postdocs

SIB Swiss Institute of Bioinformatics

Careers Contact Directory

Training courses e-learning Course materials In silico talks Who can benefit Training group

Data Management Plan

25 - 26 January 2021
□ Streamed

Cancellation deadline:
11 January 2021

Cécile Lebrand, Vassilios Ioannidis, Grégoire Rossier

DATA MANAGEMENT

BEGINNER

ACADEMIC: 0 CHF
FOR-PROFIT: 0 CHF

Application are closed because the course is full with a long waiting list or has just passed. Sign up to receive notification when a new course is scheduled.

CLOSED

No future instance of this course is planned yet

<https://www.bium.ch/en/publication-open-access/data-management/>



FBM DATA MANAGEMENT TOOL BOX



Bibliothèque universitaire
de médecine

[BiUM](#) > [Guides](#) > [Data management toolbox](#) > Content

Data management toolbox: Content

Content

DMP

Metadata standards

File formats for long-term preservation and re-use

Through the process of data life cycle management, the BiUM publication management service is providing information, advice and help to researchers for preparing a **Data Management Plan** and sharing data through **selected repositories**.

This toolbox consists of :

- FBM CHUV and UNIL **DMP tools and templates** for SNFS;
- Lists of adapted **data repositories** for publishing research data;
- **Metadata standards** for datasets;
- Models of **readme files**;
- **File formats** for long term datasets storage and re-use;
- **Data licenses** to protect your copyrights.

DMPONLINE COLLABORATIVE TOOL



DMPonline template pour la Faculté de Biologie et Médecine

When creating your account and to use the tool please comply with our [help page recommendation](#).

Two DMP templates in English for SNF funding applications are available for UNIL and CHUV researchers of the Faculty of Biology and Medicine:

- [FBM UNIL DMP template from the BiUM for SNSF funding](#)
- [FBM CHUV DMP template form the BiUM for SNSF funding](#)

HOW TO RESPECT THE FAIR DATA PRINCIPLES?



Findability



Accessibility



Interoperability



Reusability

FAIR is a set of
guiding principles
to make data
Findable,
Accessible,
Interoperable, and
Re-usable

- [FAIR Data Principles](#)
- [SNSF Explanation of the FAIR Data Principles \(PDF\)](#)
- [Wilkinson et al. \(2016\), The FAIR Guiding Principles for scientific data management and stewardship, Scientific Data 3, doi:10.1038/sdata.2016.18 \(PDF\)](#)

The Fair Data Principles: in detail

To be Findable

- F1. (meta)data are assigned a globally unique and eternally persistent identifier.
- F2. data are described with rich metadata.
- F3. (meta)data are registered or indexed in a searchable resource.
- F4. metadata specify the data identifier.

To be Accessible

- A1 (meta)data are retrievable by their identifier using a standardized communications protocol.
- A1.1 the protocol is open, free, and universally implementable.
- A1.2 the protocol allows for an authentication and authorization procedure, where necessary.
- A2 metadata are accessible, even when the data are no longer available.

To be Interoperable

- I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
- I2. (meta)data use vocabularies that follow FAIR principles.
- I3. (meta)data include qualified references to other (meta)data.

To be Re-usable

- R1. meta(data) have a plurality of accurate and relevant attributes.
- R1.1. (meta)data are released with a clear and accessible data usage license.
- R1.2. (meta)data are associated with their provenance.
- R1.3. (meta)data meet domain-relevant community standards.

THE FAIR DATA PRINCIPLES

www.nature.com/scientificdata

SCIENTIFIC DATA

OPEN

SUBJECT CATEGORIES

- » Research data
- » Publication characteristics

Comment: The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson *et al.*[#]

There is an urgent need to improve the infrastructure supporting the reuse of scholarly data. A diverse set of stakeholders—representing academia, industry, funding agencies, and scholarly publishers—have come together to design and jointly endorse a concise and measureable set of principles that we refer to as the FAIR Data Principles. The intent is that these may act as a guideline for those wishing to enhance the reusability of their data holdings. Distinct from peer initiatives that focus on the human scholar, the FAIR Principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its reuse by individuals. This Comment is the first formal publication of the FAIR Principles, and includes the rationale behind them, and some exemplar implementations in the community.

Received: 10 December 2015

Accepted: 12 February 2016

Published: 15 March 2016

[Wilkinson *et al.* \(2016\), The FAIR Guiding Principles for scientific data management and stewardship, Scientific Data 3, doi:10.1038/sdata.2016.18 \(PDF\)](#)

Find the right repository for your data



<http://www.nature.com/sdata/policies/repositories>

Browse our recommended data repository online.

- *We currently list more than 90 repositories, across the biological, physical and social sciences*
- *We advise authors on the best place to store their data*

[nature](#) > [world view](#) > [article](#)

WORLD VIEW | 05 September 2022

Without appropriate metadata, data-sharing mandates are pointless



Funders and investigators must demand appropriate metadata standards to take data from foul to FAIR.

[Mark A. Musen](#) 



DOMAIN-SPECIFIC PUBLIC REPOSITORIES

Sequencing

[dbSNP](#)
[dbVar](#)
[Database of Genomic Variants Archive \(DGVA\)](#)
[DNA DataBank of Japan \(DDBJ\)](#)
[EBI Metagenomics](#)
[EMBL Nucleotide Sequence Database \(ENA\)](#)
[European Variation Archive \(EVA\)](#)
[GenBank](#)
[miRBase](#)
[NCBI Sequence Read Archive \(SRA\)](#)
[NCBI Trace Archive](#)

Omics

[ArrayExpress](#)
[Biological General Repository for Interaction Datasets \(BioGRID\)](#)
[Database of Interacting Proteins \(DIP\)](#)
[dbGAP](#)
[The European Genome-phenome Archive \(EGA\)](#)
[IntAct Molecular Interaction Database](#)
[Gene Expression Omnibus \(GEO\)](#)
[GenomeRNAi](#)
[GPM DB](#)
[MetaboLights](#)
[NURSA](#)
[PeptideAtlas](#)
[Proteomics Identifications \(PRIDE\)](#)
[ProteomeXchange](#)

Structural Databases

[Biological Magnetic Resonance Data Bank \(BMRB\)](#)
[Crystallography Open Database \(COD\)](#)
[Coherent X-ray Imaging Data Bank \(CXIDB\)](#)
[Electron Microscopy Data Bank \(EMDB\)](#)
[FlowRepository](#)
[Protein Circular Dichroism Data Bank \(PCDDb\)](#)
[Worldwide Protein Data Bank \(wwPDB\)](#)

Neuroscience

[Functional Connectomes Project International Neuroimaging Data-Sharing Initiative \(FCP/INDI\)](#)
[NeuroMorpho.org](#)
[OpenfMRI](#)

Model Organisms

[Eukaryotic Pathogen Database Resources \(EuPathDB\)](#)
[FlyBase](#)
[Mouse Genome Informatics \(MGI\)](#)
[Rat Genome Database \(RGD\)](#)
[SmedGD](#)
[The Arabidopsis Information Resource \(TAIR\)](#)
[VectorBase](#)
[WormBase](#)
[Xenbase](#)
[Zebrafish Model Organism Database \(ZFIN\)](#)

Taxonomic & Species Diversity

[Integrated Taxonomic Information System \(ITIS\)](#)
[Global Biodiversity Information Facility \(GBIF\)](#)
[NCBI Taxonomy](#)
[The Knowledge Network for Biocomplexity](#)

Biomedical Sciences

[Influenza Research Database](#)
[National Addiction & HIV Data Archive Program \(NAHDAP\)](#)
[National Database for Autism Research \(NDAR\)](#)
[The Cancer Imaging Archive \(TCIA\)](#)
[SICAS Medical Image Repository](#)
[PhysioNet](#)

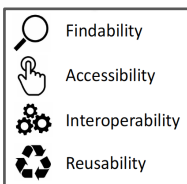
Biochemistry

[caNanolab](#)
[Kinetic Models of Biological Systems \(KiMoSys\)](#)
[The Mass spectrometry Interactive Virtual Environment \(MassIVE\)](#)
[PubChem](#)

Social sciences

[Inter-university Consortium for Political and Social Research \(ICPSR\)](#)
[Qualitative Data Repository](#)
[Swedish National Data Service](#)
[Data Archiving and Networking Services \(DANS\)](#)

<http://journals.plos.org/plosone/s/data-availability#loc-recommended-repositories>
https://figshare.com/articles/Scientific_Data_recommended_repositories_June_2015/1434640



REGISTRY FOR FINDING A FAIR AND NON-PROFIT REPOSITORY



standards, databases, policies

search through all content

Q SEARCH

LOGIN

STANDARDS

DATABASES

POLICIES

COLLECTIONS

ORGANISATIONS

ADD CONTENT

STATS

Standards

A registry of terminology artefacts, models/formats, reporting guidelines, and identifier schemas.

Search through current results.

Q SEARCH

Clear All

Registry: Standard

MATCH ALL TERMS

MATCH ANY TERM

MAINTAINED

NOT MAINTAINED

RECOMMENDED

NOT RECOMMENDED

READY

DEPRECATED

UNCERTAIN

IN DEV.

Registry

Search

APPLY

1

2

3

...

52

53

54

Displaying 1 to 30 of 1616.

CVDO



Cardiovascular Disease Ontology

CVDO is an ontology based on the OGMS model of disease, designed to describe entities related to cardiovascular diseases (including the diseases themselves, the underlying disorders, and the relat...

Cardiology

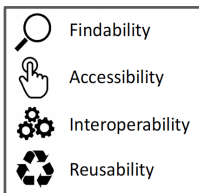
Cardiovasc...

Homo sapi...

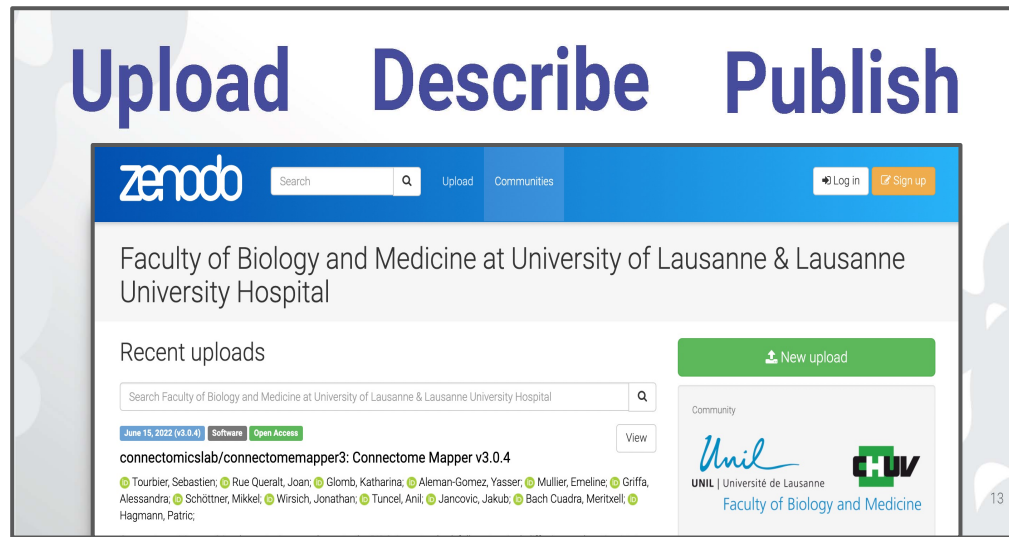


UNIL | Université de Lausanne
Faculté de biologie et de médecine



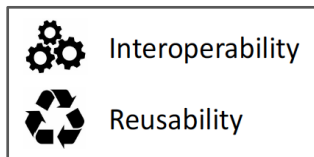


BIUM CURATION SERVICE FOR UNSTRUCTURED DATA REPOSITORIES IN OA ON REPOSITORIES (FAIR & NON PROFIT)



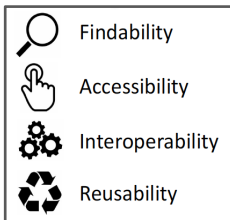
<https://www.bium.ch/en/publication-open-access/data-management/#5>

- Creation of a [FBM community on Zenodo](#) for unstructured data (70 datasets). Limit 50 GB per dataset - unlimited number of datasets per group
- Tutorials and customised help for data curation (metadata, file formats and readme)
- Investigation of various unstructured dataset repository solutions in the biomedical field to meet all specific FBM needs (Harvard Dataverse, Dryad,...)



SERIOUS PROBLEM: HOW TO MAKE YOUR DATA INTEROPERABLE AND REUSABLE IN THE BIOMEDICAL FIELD

Types	Equipment	Software	Data storage format	DATA SHARING/ archiving format	Volume
Microscopy images					
Raw data: microscopy cell images	Zeiss LSM 710 Quasar	ZEN lite software	.liff	.tiff uncompressed, OME-TIFF JPEG2000	2 TB
Secondary data: 3D Z-stack reconstructions and processed images		Imaris 7.2.1 software; Fiji/ImageJ; Adobe Photoshop CS5	.ims, .tif series, .PSD	.tiff uncompressed, OME-TIFF JPEG2000	4 TB
Analysed data: cell quantifications		Imaris 7.2.1 software, Excel	.ims, .xlsx	.xlsx; .csv	50 GB
Raw data :time lapse video microscopy	Leica SP5	LAS AF Lite 4.0.11706	.czi files;.avi;.mov	MPEG-4; Motion JPEG 2000	2 TB
Analysed data: tracking function		Metamorph software 6.0	.xlsx	.xlsx; .csv	20 GB
					TOTAL > 8 TB



ASSISTANCE OF A FAIR BIOINFORMATICIAN RECRUITED VIA UNIRIS AS FBM DATA STEWARD

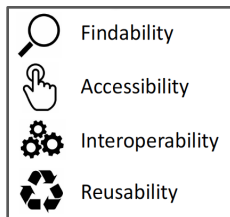
Data Stewardship Wizard

Create, plan, collaborate, and bring your data management plans to life with a tool trusted by thousands of people worldwide — from data management pioneers, to international research institutes.



Dr. Vassilios Ioannidis (bioinformatician specialised in FAIR issues) recruited as Data Steward by UNIRIS/UNIL for the FBM UNIL and CHUV

NEW CUSTOMISED BIUM FAIR DATA WORKSHOPS AT THE FBM WITH THE DATA STEWARDSHIP WIZARD TOOL IN 2023



II. Re-using data ✓

III. Creating and collecting ... 3

- Are you running the project in a...
- Will you be collecting physical ...
- How will you do file naming an...
- What existing data formats/typ...
- What existing encodings/termi...
- Will you be using new types of ...
- How will you be collecting and ...
- Will you be acquiring data usin...
- Do you have any non-equipme...
- Is there a data integration tool t...
- Will you collect any data conne...
- How is the ownership of the col...
- Did you consider how to monit...

IV. Processing data 3

V. Interpreting data 2

VI. Preserving data 4

VII. Giving access to data 3

Nouvel onglet 4.b.1 Data format/type

Horizon 2020 DMP Horizon Europe DMP Science Europe DMP

☒ Desirable: Before Submitting the Proposal

Open Microscopy Environment - Tagged Image File Format

FAIRsharing <https://fairsharing.org/10.25504/FAIRsharing.cq8tg2>

Clear answer

Answered 16 days ago by Cecile Lebrand.

4.b.2 Is this a standard data format widely used by researchers in this field?

Horizon 2020 DMP Horizon Europe DMP Science Europe DMP

☒ Desirable: Before Submitting the DMP

☐ a. No Interoperability

☒ b. Yes Interoperability

Clear answer

Answered 16 days ago by Cecile Lebrand.

- Customised BiUM FAIR Data workshops for groups, laboratories or institutes FBM UNIL -CHUV: help researchers to assess to what extent their data management is in line with FAIR principles and find practical solutions (adapted FAIR repository, standard metadata and file formats, versioning management, automation...).
- Use of the [Data Stewardship Wizard](#) tool developed by the European network Elixir.



Cécile Lebrand, PhD

Consultante Recherche

Responsable du pôle Open Science FBM UNIL/CHUV
Soutien pour la gestion et valorisation des données de recherche

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