MANUAL FOR RESTORE RESEARCHERS:

UPLOADING AND DOWNLOADING DATA FROM MOLGENIS SERVER

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1. INTRODUCTION

This manual explains how to upload to and download data from Molgenis within the ReSToRe project. Please reach out to your local Data Manager if you have any question.

a. Responsibilities

- Data managers
  Each site appointed a data manager and one back-up. He/she is the main point of contact of the site if there are questions or issues. In case of unresolved issues, the data manager reaches out to the Admin.

Institute	**Data managers**		**Backup**	
UA	Nathalie	Nathalie.Cools@uza.be	Inez Wens	inez.wens@uza.be
Sanquin	Anja	a.tenbrinke@sanquin.nl	Virginia Palomares Cabeza	V.PalomaresCabeza@sanquin.nl
Unav	Ascen	aslopez@unav.es	Susana Inogés	sinoges@unav.es
ICS	Aina Teniente	atiente.germanstrias@gencat.cat	Anabel	ambarriocanal@igtp.cat
ICS	Silvia	spresas@igtp.cat	Cristina	cramot@gmail.com
UZA	Barbara	Barbara.Willekens@uza.be	Inez Wens	inez.wens@uza.be
WWU	Catharina	Catharina.Gross@ukmuenster.de	Andreas Schulte Mecklenbeck	Andreas.Schulte-Mecklenbeck@ukmuenster.de
IcoM	Thibo Billiet	thibo.billiet@icometrix.com	Annemie	annemie.ribbens@icometrix.com

- Admin
  One admin has been appointed. He/she arranges Molgenis accounts for members of the consortium and is the main point of contact in case of issues and questions.
  Inez Wenz, UA Inez.Wens@uza.be

b. Access to Molgenis

Based on your needs, you received access to Molgenis in one of the following three roles:

- Editor Upload and delete data in the folder of your site (i.e. data managers)
- Viewer View and download all data (i.e. ReSToRe researchers)

You can request access to Molgenis by emailing the Admin. Please add your local data manager for approval.

2. UPLOAD DATA

a. Convert data to Molgenis format

Please find below an example of the data format for Molgenis. To upload data to Molgenis, convert your data to the following format in an Excel or comma-separated values (csv) file.

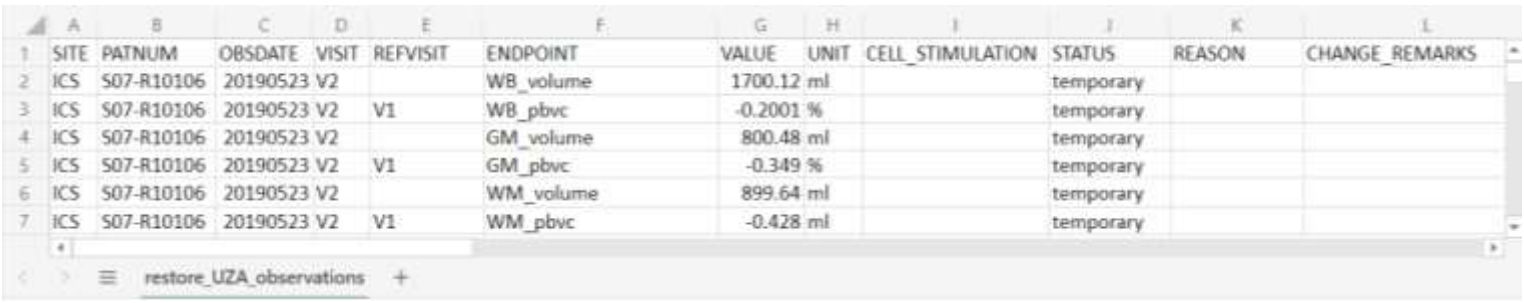
- Add the following headers to the columns using CAPITAL letters

- - Excel:
  Make an Excel file with only one sheet. Name the sheet of the Excel file 'restore_###_observations' so that Molgenis recognizes the correct sheet.

  - CSV:
  Name the file 'restore_###_observations'

  ### For both the Excel and the CSV file, replace '###' by the abbreviation of your site (e.g. Antwerp University Hospital = UZA, Catalan Institute of Health = ICS, etc.)

- You can now upload the file to Molgenis



	A	B	C	D	E	F	G	H	I	J	K	L
1	SITE	PATNUM	OBSDATE	VISIT	REFVISIT	ENDPOINT	VALUE	UNIT	CELL_STIMULATION	STATUS	REASON	CHANGE_REMARKS
2	ICS	S07-R10106	20190523	V2		WB_volume	1700.12	ml		temporary		
3	ICS	S07-R10106	20190523	V2	V1	WB_pbvc	-0.2001	%		temporary		
4	ICS	S07-R10106	20190523	V2		GM_volume	800.48	ml		temporary		
5	ICS	S07-R10106	20190523	V2	V1	GM_pbvc	-0.349	%		temporary		
6	ICS	S07-R10106	20190523	V2		WM_volume	899.64	ml		temporary		
7	ICS	S07-R10106	20190523	V2	V1	WM_pbvc	-0.428	ml		temporary		

restore_UZA_observations +

These are the columns (and headers in the Excel file):

- **SITE** – Abbreviation of the partner. Only one site can be chosen *(mandatory)*
  UZA; ICS; UA; SQ; WWU; icoM; UNAV (please choose one of these exact options)

- **PATNUM** – Patient number abbreviated as Pat-## *(mandatory)*

- **OBSDATE** – Format YYYY-MM-DD (MM = number) *(mandatory)*

- **VISIT** – The number of the visit coded as V# *(mandatory)*

- **REFVISIT** – The number of the visit coded as V# *(optional)*

- **ENDPOINT** – *(mandatory)*

If necessary, the admin can adapt the endpoints. The list of endpoints can be found on MyProjectPlaza (accessible for ReSToRe consortium members only): ReSToRe - Endpoints - All Documents (sharepoint.com)

- **VALUE** – When entering values, use a decimal point as decimal separator. Make sure that entries considered as numbers are stored as number** *(mandatory)*

- **UNIT** – Allowed options: ml; None; percent; s *(mandatory)*

- **CELL_STIMULATION** – Text can be entered. This column applies to *in vitro* experiments where cells are being stimulated in different conditions *(optional)*

- **STATUS** – Allowed options: temporary; final; not provided *(mandatory)*

- **REASON** – This field can be filled in to explain the 'Status' of the data *(optional)*

- **CHANGE_REMARKS** – A remark and or data can be given if a data value has changed as compared to a previous upload *(optional)*

Tips!
- ** Be aware that Excel tends to automatically change values (particularly dates). When saving your data in Excel, be careful with editing. Please make sure that values are set as 'number' format. Please find here more information on how to convert a text format into a number format.
- We highly recommend to automate the conversion of your data to the Molgenis format in order to decrease the risk of errors.

b. Upload data file to Molgenis – first time

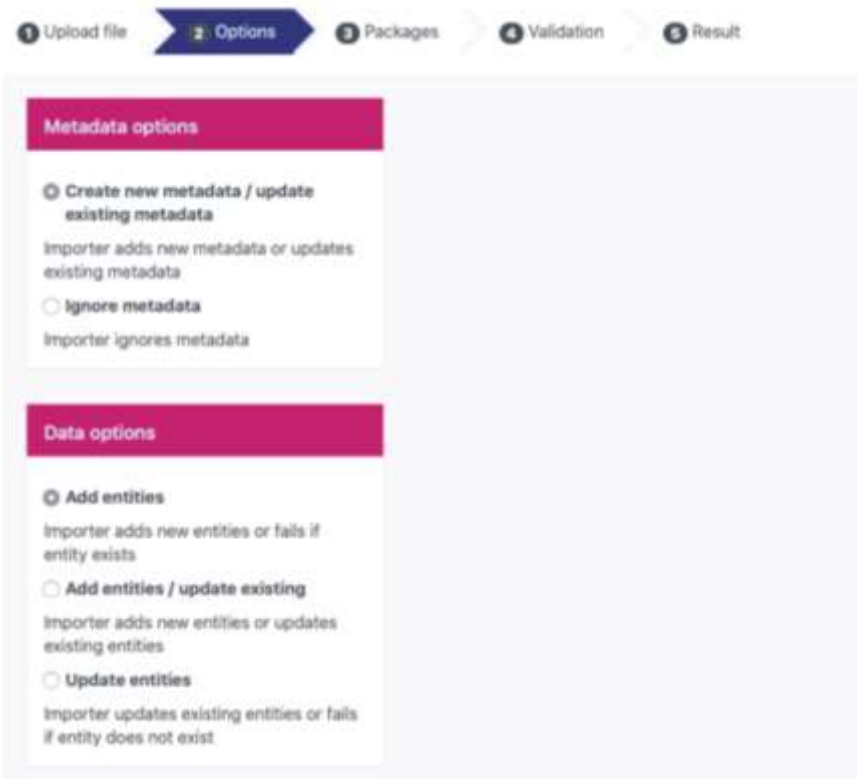
Once your data is in the Molgenis format, you can login to Molgenis (restore.molgeniscloud.org) and upload the data. Note that you can only upload data to your local site (e.g. if you are from UZA, you can only upload to the UZA area in Molgenis).

Follow these steps to upload the **data file**:

- On the top of the page, go to 'Import data' and follow the steps:

- '1. Upload file' – Select your Excel or csv file and click 'Next'

- '2. Options'
  Please chose the following options and click 'Next':



- '3. Packages' – No action is required here.
  Note that an error will appear in case the Site (via the name given to the excel sheet) is not being recognised.

- '4. Validation' – Make sure the system recognises all columns. If a column is omitted and/or is not recognised, the data file will not pass the validation (screenshot 1). The omitted and/or unrecognised column will be marked red ('Required') and/or yellow ('Unrecognised'), respectively (screenshot 2).

Screenshot 1

Screenshot 2

c. Upload new data

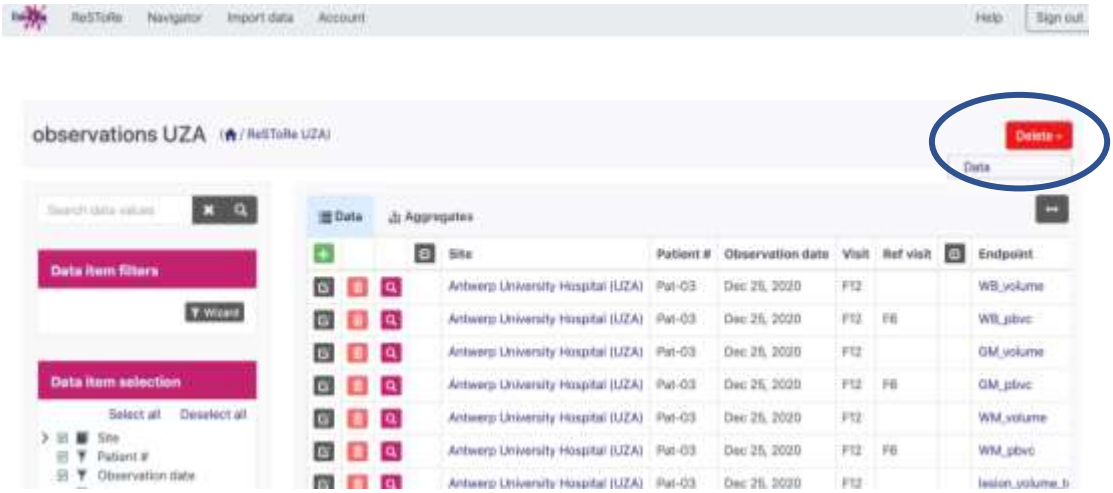
We highly advise you to the make a source file with all the entries. If you upload new entries, first update your source file stored on your own computer and then upload this whole source file (including both already uploaded data and new data).

- Login to Molgenis
- Go to Navigator and select your SITE folder
- Delete your data of this folder (screenshot 3)
  Note that you can only delete data from your own institute
- Upload the whole source file to Molgenis by following the steps as described above in '**b. Upload data file to Molgenis**'.

d. Adapt already entered data

We highly advise you to the make a source file with all the entries. If you need to make changes to uploaded data and/or add new entries, update your source file stored on your own computer. If you make changes to already uploaded data, please note the date of the changes in the column 'CHANGE_REMARKS'. You can also add text in this column.

- Login to Molgenis
- Go to Navigator and select your SITE folder
- Delete your data of this folder (screenshot 3)
  Note that you can only delete data from your own institute
- Upload the whole source file to Molgenis by following the steps as described above in '**b. Upload data file to Molgenis**'.



Screenshot 3

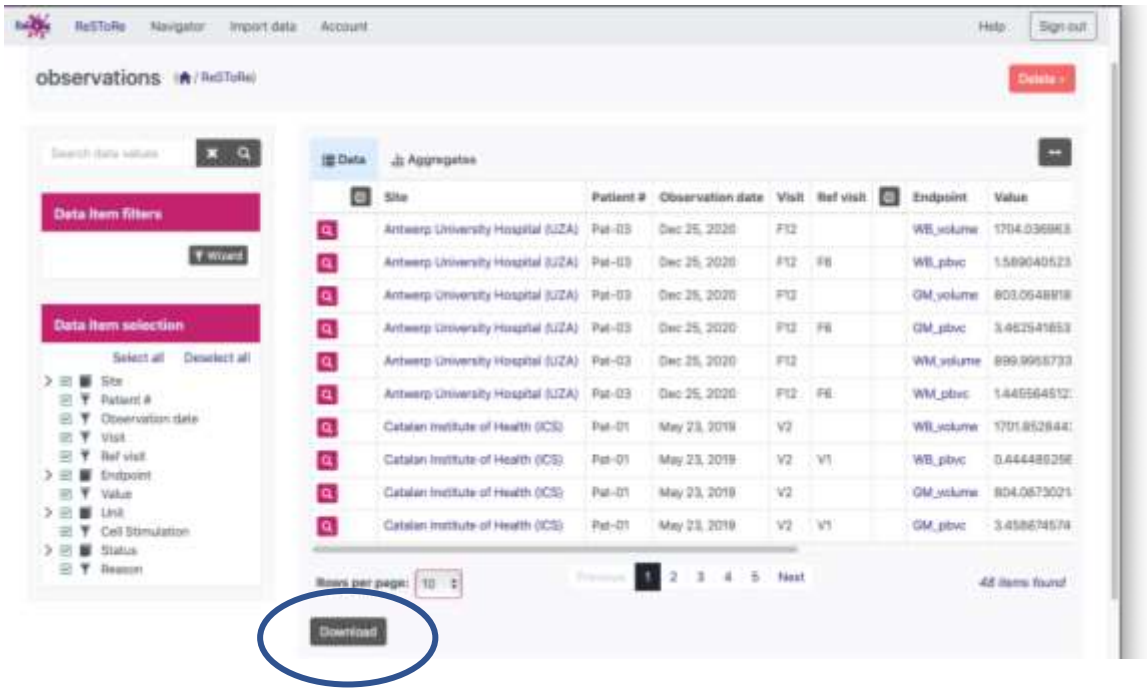
e. Merge data into a master file

The data uploaded by different sites will be merged into one master file automatically. The updated master file will be available on Monday every week.

3. DOWNLOAD DATA

a. To download all data

- Login to Molgenis (restore.molgeniscloud.org)
- Go to ‘ReSToRe’ on the top left
- Select ‘Download’ at the bottom right of the page



b. To download specific entries

- Go to ‘ReSToRe’ on the top left
- Go to the left pane ‘Data item filters’
- Select ‘Wizard’ and select the entries for the specific variables you want to download
- Select ‘Apply’ and ‘Download’ at the bottom right of the page

c. To download specific variables

- Go to ‘ReSToRe’ on the top left
- Go to the left pane ‘Data item selection’ and select the variables you want to download
- Select ‘Download’ at the bottom right of the page

Once you selected ‘Download’, you can choose between the following options. These are the advised selections:

Download as csv

As column names I want:

- ○ Attribute Labels
- ◉ Attribute Names

As entity values I want:

- ○ Entity labels
- ◉ Entity ids

As download type I want:

- ◉ CSV
- ○ XLSX

Cancel Download