

FWF Data Management Plan (DMP)

I General Information																																									
I.1 Administrative information	<p>Ao.Univ.Prof. Dr. ██████████ (PI); E-mail: ██████████@i-med.ac.at; Tel. +43 ██████████ FWF project number ██████████</p> <p>Version DMP: V1 - 2024-07-30</p>																																								
I.2 Data management responsibilities and resources	<p>██████████ (PI) and Co-authors Ao.Univ.Prof. ██████████ and ██████████ all from the Institute ██████████</p> <p>Co-ordination of data management will be done by the PI following the FAIR principle.</p> <p>Costs for data collection are covered by the project, no additional costs for personnel are needed for the time for data collection, their processing or storage costs.</p> <p>Costs for data collection at specific units of the University of Innsbruck (Central Animal Facility, Biooptics Unit) are enclosed and covered by the project. Data storage and repository is offered by the MUI infrastructure at no additional cost.</p>																																								
II Data Characteristics																																									
II.1 Data description and collection or re-use of existing data	<p>New data will be acquired according to the methodologies detailed in the proposal.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: left;">Type</th> <th style="text-align: left;">Format</th> <th style="text-align: left;">Volume</th> <th style="text-align: left;">Re-used (R) / Produced (P)</th> </tr> </thead> <tbody> <tr> <td>e.g. tissue sample</td> <td>text/figure</td> <td>czi/tiff</td> <td>< 1 g</td> <td>P</td> </tr> <tr> <td>e.g. fungal counts</td> <td>figure</td> <td>pzfx</td> <td>0.1 ml</td> <td>P</td> </tr> <tr> <td>e.g. blood counts</td> <td>excel</td> <td>xlsx</td> <td>< 1 ml</td> <td>P</td> </tr> <tr> <td>e.g. animal clinical signs</td> <td>Word</td> <td>docx</td> <td>some pages</td> <td>P</td> </tr> <tr> <td>e.g. cell samples</td> <td>FACS</td> <td>fcs</td> <td>< 1 ml</td> <td>P</td> </tr> <tr> <td>PCR samples</td> <td>Thermocycler</td> <td>mxp</td> <td>10 µl</td> <td>P</td> </tr> <tr> <td>Histopathology samples</td> <td>Scanner, Microscopes</td> <td>ndpi / mrxs</td> <td>object slices</td> <td>P</td> </tr> </tbody> </table>	Name	Type	Format	Volume	Re-used (R) / Produced (P)	e.g. tissue sample	text/figure	czi/tiff	< 1 g	P	e.g. fungal counts	figure	pzfx	0.1 ml	P	e.g. blood counts	excel	xlsx	< 1 ml	P	e.g. animal clinical signs	Word	docx	some pages	P	e.g. cell samples	FACS	fcs	< 1 ml	P	PCR samples	Thermocycler	mxp	10 µl	P	Histopathology samples	Scanner, Microscopes	ndpi / mrxs	object slices	P
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There is no re-use of existing data.

Provenance will be documented in lab books and in PCs using respective software (Microsoft Office Package, GraphPad Prism, Acrobat Reader). Origin with persons, Units and date will be documented.

Kind of data: most data will be numeric, additional data will be images.

Data will be generated as text, images, tables, graphs, numeric (databases), textual (documents) and images.

Most of the generated data is in propriety format due to used instruments. Software from propriety instruments will be converted to data accessible to open office.

The files will be in the following formats:

- .pzfx (GraphPad Prism files for most numerical data (can be converted to pdf and included in docx files; Prism is an ideal program for creation of graphs and statistical evaluation of data)
- .xlsx files (numerical and tabular data)
- .tiff files (images, can be converted to pdf files)
- .docx files (textual files)
- .czi for microscopy images from ZEN program (will be converted to .tiff)
- .fcs for FACS analyses (will be converted to .tiff)
- .mxp for PCR analyses from ARIA Software (will be converted to .xlsx)
- .ndpi (Hamamatsu scanner) and .mrxs for histopathological and immunohistochemical analyses (will be converted to .tiff)

File structure follows work packages and within those packages, the generating institutes serve as substructure, file name will contain type and date of experiment.

Considering the amount of generated images, we estimate a data volume of app. 2 TB

III.1 Metadata and documentation	<p>Given the multiple and diverse data formats and disciplines involved in the project, no specific metadata standard will be applied.</p> <p>Beyond the use of the data collection by the consortium, the following metadata will be generated to ease the re-usability of the datasets by other groups of research:</p> <ul style="list-style-type: none"> – Experiment information: Project description and objective of the study – Study design: type of data (e.g., clinical data of animals, analysis of images), information about the design (e.g., number of samples, description of samples, part of internal and external data, replicate types), variables description – Methods: platforms used, instrumentation details, standards used to analyse the samples, units – Data processing: methods used for data processing, normalization, outlier detection. – Date of addition to the central database and source (partner identifier) <p>Within datasets, all data will be associated with the following information:</p> <ul style="list-style-type: none"> – Animal identifier – When applicable: Sample identifier, sample type (e.g., biofluid or organ) <p>Data creator (partner identifier)</p> <p>A version control is automated. File naming is done according to the following standard: [focus group]_[location]_[method]_[YYYYMMDD].fileformat</p>
III.2 Data quality control	<p>The data quality is checked in peer-review compliance with standard operating procedures.</p> <p>In case of poor reproducibility of data which may lead to inappropriate conclusions, the data creator will be advised to analyse each step in the experimental procedure.</p> <p>Monthly meetings with discussion of data content and quality will be organized.</p>
IV Data Storage, Sharing, and Long-Term Preservation	
IV.1 Data storage and backup during the research process	<p>During the project, data is stored on a central and redundant centralised and redundant network drive with daily backups and regular snapshots provided by Medical University of Innsbruck MUI IT department.</p>
IV.2 Data sharing and long-term preservation	<p>Potential users should need no specific tools to access, interpret, and (re)-use the data according the FAIR principles. Long-term storage of all electronically generated data will be done on servers of the Medical University Innsbruck for at least 10 years after ending of the project. All written records will be retained</p>

	<p>for at least 10 years after the project ends. No additional cost will arise for long-term storage. All patient data acquired will be handled according to Data Protection Regulations guideline (https://www.dsb.gv.at/).</p> <ul style="list-style-type: none"> – Data underpinning research papers will be made available together with the publication at the latest, taking into account FAIR principles, data protection and protectable results. – We aim to publish exclusively in open access journal and/or articles. – Data underpinning research papers will be discoverable and made available for re-use via ZENODO (https://zenodo.org/communities/i-med/records?q=&l=list&p=1&s=10&sort=newest), using persistent identifiers (DOIs) and an open license such as CC-BY.
V Legal and Ethical Aspects	
V.1 Legal aspects	<p>The rights to the generated and collected Data remain with the PI and co-author XXXXXXXXXX respectively with the MUI, in accordance to Austrian University Law UG 2002 and MUI directives and any other applicable legal regulation.</p> <p>As the departments involved in this project are those of MUI, no consortium agreement is intended.</p> <p>Output will include: publications (copyright law), software/database (special copyright law sections, for instance of ZENODO) and possibly patents (patent law) according to national regulations and directives of the Medical University of Innsbruck in place.</p> <p>No third-party data will be used.</p> <p>Animal tests will be approved by the respective Federal Ethics Committee (see V.2).</p>
V.2 Ethical aspects	<p>All animal experiments will be performed at Central Laboratory Animal Facility of Medical University Innsbruck compliant with Austrian Animal Testing Act 2012 (BGBl. I Nr. 114/2012). The respective license from the National Committee for Animal Care of the Austrian Federal Ministry of Education, Science and Research will be applied for by the applicants following the “3Rs”-guidelines (Reduction, Replacement, Refinement).</p> <p>All experiments will be performed according to Good Scientific Practise guidelines (https://www.i-med.ac.at/goodscientificpractice/)</p>