

DATA MANAGEMENT PLAN

1. Data description and collection or re-use of existing data
How will new data be collected or produced and/or how will existing data be re-used?
New data will be collected during experiments designed by team members. Data will be produced in digital form by specialized software tools used to control scientific equipment. Existing data will be re-used after a manual or automatized data import from digital and analog data sources. In the case of re-use of data from analog sources they will transformed to digital form.
What data (for example the kinds, formats, and volumes) will be collected or produced?
Data will be mainly, but not exclusively, collected as: <ul style="list-style-type: none"> • raw chromatograms and mass spectra (as .dat files or as a records in equipment-specific Oracle databases), • raw cytometric data (.fcs in at least 3.0 format), • raw RT-PCR data as .ixo objects, • western-blot images (as .tif, .jpeg, .bmp and other graphic formats and densitograms) • manually entered numeric and text records • genomic data
2. Documentation and data quality
What metadata and documentation (for example methodology or data collection and way of organising data) will accompany data?
Raw instrumental data will be organized in a software-specific manner. When possible raw data will be accompanied by metadata like sample code, acquisition date, experiment date and details, data, author, and other. Processed, manually entered and reused data will be organized in tabularized datasets accompanied by metadata in standard Dublin Core.
What data quality control measures will be used?
Data will be obtained by qualified personnel using validated analytical methods. When possible and appropriate, technical and biological replicates will be performed. Data will be released, when meet validation criteria. Manually entered data will be cross-checked by second person to avoid mistypes. Software tools will be used to check data consistency and appropriate format.
3. Storage and backup during the research process
How will data and metadata be stored and backed up during the research process?
Data will be stored in electronic form at mass storage devices of equipment used for data collection (usually personal computer or workstation). Raw data back-up will be organized in regular manner, not rare than one per month, using operating system included tools on independent data storage device, preferably on network share when possible. Raw data backup will be administered by data servant.
How will data security and protection of sensitive data be taken care of during the research?

Access to all devices used to data generation and storage will be controlled at user level using standard MS Windows domain protocols.

Sensitive data will be collected in a “as-less-as-necessary” manner. All sensitive data will be password-protected in addition to user-level access. Passwords will be distributed using other communication channels than used for data transfer.

4. Legal requirements, codes of conduct

If personal data are processed, how will compliance with legislation on personal data and on data security be ensured?

Data processing and storage will adhere to the GDPR directive. No data production or data processing will commence until the work and data protection plan is approved by the Data Protection Office. All patients will receive a study-Id number and patient data will be handled pseudonymised. The data will be processed and stored at a secure server service for secure data storage.

How will other legal issues, such as intellectual property rights and ownership, be managed? What legislation is applicable?

All data authors will be free to choose appropriate form of intellectual property rights protection, in agreement with employer funder rules. When possible, we will strongly encourage applying CC-BY-SA 3.0 license schema.

5. Data sharing and long-term preservation

How and when will data be shared ? Are there possible restrictions to data sharing or embargo reasons?

Raw data will be shared on reasonable personal request directly from data author or via data steward. Raw data should be released maximum half year after the release through publication of main findings. Processed data will be shared in open repositories and databases appropriate to data format Data will be timely released, generally no later than release through publication of the main findings.

How will data for preservation be selected, and where will data be preserved long-term (for example a data repository or archive)?

Data-on-request will be available minimum ten years after data release. Data shared via repositories will be available as long as repository will be serving.

What methods or software tools will be needed to access and use the data?

To access raw data-on-request specialized software may be necessary. When possible data will be exported to formats readable by open-source software. Processed data will be accessible using standard office applications.

How will the application of a unique and persistent identifier (such as a Digital Object Identifier (DOI)) to each data set be ensured?

Data will be deposited only in repositories offering free unique Digital Object Identifier (DOI) – see above.

6. Data management responsibilities and resources

Who (for example role, position, and institution) will be responsible for data management (i.e the data steward)?

The data steward responsible for data management will be employed during the implementation of the project.

What resources (for example financial and time) will be dedicated to data management and ensuring the data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

The remuneration of data steward will be incurred for the costs of the project during its implementation. After completion of the project, such work will be carried out by statutory employees of the University. The costs of deposition of data in specialized repositories may be incurred for the costs of the project. Mass-storage devices dedicated to project-related data backup will be purchased .

TEMPLATE