FWO DMP Template - Flemish Standard Data Management Plan

Project supervisors (from application round 2018 onwards) and fellows (from application round 2020 onwards) will, upon being awarded their project or fellowship, be invited to develop their answers to the data management related questions into a DMP. The FWO expects a **completed DMP no later than 6 months after the official start date** of the project or fellowship. The DMP should not be submitted to FWO but to the research co-ordination office of the host institute; FWO may request the DMP in a random check.

At the end of the project, the **final version of the DMP** has to be added to the final report of the project; this should be submitted to FWO by the supervisor-spokesperson through FWO's e-portal. This DMP may of course have been updated since its first version. The DMP is an element in the final evaluation of the project by the relevant expert panel. Both the DMP submitted within the first 6 months after the start date and the final DMP may use this template.

The DMP template used by the Research Foundation Flanders (FWO) corresponds with the Flemish Standard Data Management Plan. This Flemish Standard DMP was developed by the Flemish Research Data Network (FRDN) Task Force DMP which comprises representatives of all Flemish funders and research institutions. This is a standardized DMP template based on the previous FWO template that contains the core requirements for data management planning. To increase understanding and facilitate completion of the DMP, a standardized **glossary** of definitions and abbreviations is available via the following link.

1. General Project Information	
Name Grant Holder & ORCID	Jolien Schaeverbeke ORCID 0000-0003-2257-0568
Contributor name(s) (+ ORCID) & roles	Dietmar Rudolf Thal ORCID 0000-0002-1036-1075 promotor Rik Vandenberghe ORCID 0000-0001-6237-2502 co-promotor
Project number[1] & title	Selective vulnerability in Alzheimer's disease and frontotemporal degeneration: integration of postmortem MRI, mass-spectrometry and histopathology
Funder(s) GrantID[2]	FWO #12Y1623N
Affiliation(s)	■ **KU Leuven** ☐ Universiteit Antwerpen ☐ Universiteit Gent ☐ Universiteit Hasselt ☐ Vrije Universiteit Brussel ☐ Other: Provide ROR[3] identifier when possible:

[1] "Project number" refers to the institutional project number. This question is optional since not every institution has an internal project number different from the GrantID. Applicants can only provide one project number.

[2] Funder(s) GrantID refers to the number of the DMP at the funder(s), here one can specify multiple GrantIDs if multiple funding sources were used.

[3] Research Organization Registry Community. https://ror.org/

Please provide a short project description	Understanding selective vulnerability is one of the most fundamental challenges in the field of neurodegenerative disease. While structural MRI is widely used in clinical diagnostic settings, it lacks more fine-grained information on the nature of the observed atrophy. The current proposal aims for a multidisciplinary integration of *postmortem* MRI with in-depth protein and cellular analyses using histopathology and mass-spectrometry. The unique combination of these modalities allows a bidirectional approach. First, we will link cellular and molecular protein signatures to atrophy patterns informing on selectively vulnerable (i) brain regions as well as (ii) brain networks. Second, *postmortem* MRI will be of substantial value to put the observed histopathological and mass-spectrometric regional findings in a broader, whole-brain network context. Third, recent methods for MRI-based disease staging allows us to situate an individual's brain and the different brain regions on a disease continuum that will enable us to define the type of neuropathological and mass-spectrometric changes occurring in a given disease stage. The three modalities (*postmortem* MRI, histopathology and mass-spectrometry) will be applied in two neurodegenerative diseases: Alzheimer's disease (preclinical and symptomatic), and patients with frontotemporal lobar degeneration (FTLD, behavioral variant and primary progressive aphasia), and will be compared to cognitively intact controls.

2. Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data[4].

				ONLY FOR DIGITAL DATA	*ONLY FOR DIGITAL DATA*	*ONLY FOR DIGITAL DATA*	*ONLY FOR PHYSICAL DATA*
Dataset Name	Description	New or Reused	Digital or Physical	Digital Data Type	Digital Data Format	Digital Data Volume (MB, GB, TB)	Physical Volume
		☐ Generate new data ☐ Reuse existing data	☐ Digital ☐ Physical	☐ Observational ☐ Experimental ☐ Compiled/ aggregated data ☐ Simulation data ☐ Software ☐ Other ☐ NA	☐ .por ☐ .xml ☐ .tab ☐ .csv ☐ .pdf ☐ .txt ☐ .rtf ☐ .dwg ☐ .tab ☐ .gml ☐ other: ☐ NA	☐ < 100 MB ☐ < 1 GB ☐ < 100 GB ☐ < 1 TB ☐ < 5 TB ☐ < 10 TB ☐ < 50 TB ☐ > 50 TB ☐ NA	
Raw MRI data	MRI data from study participants: clinical brain MRI (reused) and postmortem MRI of a fixed brain	New and reused	digital	experimental	Other: PAR/REC, DICOM, metadata: .txt	< 1TB	/

[4] Add rows for each dataset you want to describe.

	hemisphere of autopsy cases (new)						
Processed MRI data	MRI data from study participants: clinical brain MRI (reused) and postmortem MRI of a fixed brain hemisphere of autopsy cases (new)	New and reused	digital	experimental	Other: .hdr/img, .nii	< 1TB	/
Stained slides	Glass slides with fixed tissue of autopsy cases	New and reused	physical	experimental	/	/	15000 - 35000 slides
Microscopic images	Documentation of pathologies for quantitative assessments	New	digital	experimental	Other: .jpeg and .tif, .czi (scanned slides)	300GB-2TB	/
Tissue samples	Extracted from bulk brain (frozen or fixed)	New	physical	experimental	/	/	500 eppendorf tubes and paraffin blocks

Raw mass-spectrometry data	mass-spectrometry of frozen tissue samples (4 biochemical fractions)	New	digital	Software: Mascot and Maxquant files	.xml	< 1TB	/
Processed mass-spectrometry data	mass-spectrometry of frozen tissue samples (4 biochemical fractions)	New	digital	Software: Progenesis/Scaffold/Maxquant datasets	.txt or .xlsx	< 1TB	/
Databases for statistical analysis	Summary of all data (age, sex, other demographics, neuropathological parameters, MRI and mass-spectrometry data) for statistical analysis	New and reused	digital	observational	.xlsx or R files	1-3 GB	/
Associated scripts	custom scripting	New	digital	experimental	R, Matlab and Statistical Parametric mapping, Freesurfer files	<1 MB	/

Associated figures	R, ppt, paint, Adobe Illustrator	New	digital	experimental	.pdf, .jpeg, .png, .tif	20MB	/
Manuscript files	.docx, latex	New	digital	experimental	.docx, latex	20MB	/

GUIDANCE:

DATA CAN BE DIGITAL OR PHYSICAL (FOR EXAMPLE BIOBANK, BIOLOGICAL SAMPLES, …). DATA TYPE: DATA ARE OFTEN GROUPED BY TYPE (OBSERVATIONAL, EXPERIMENTAL ETC.), FORMAT AND/OR COLLECTION/GENERATION METHOD.

EXAMPLES OF DATA TYPES: OBSERVATIONAL (E.G. SURVEY RESULTS, SENSOR READINGS, SENSORY OBSERVATIONS); EXPERIMENTAL (E.G. MICROSCOPY, SPECTROSCOPY, CHROMATOGRAMS, GENE SEQUENCES); COMPILED/AGGREGATED DATA[5] (E.G. TEXT & DATA MINING, DERIVED VARIABLES, 3D MODELLING); SIMULATION DATA (E.G. CLIMATE MODELS); SOFTWARE, ETC.

EXAMPLES OF DATA FORMATS: TABULAR DATA (.POR,. SPSS, STRUCTURED TEXT OR MARK-UP FILE XML, .TAB, .CSV), TEXTUAL DATA (.RTF, .XML, .TXT), GEOSPATIAL DATA (.DWG,. GML, ..), IMAGE DATA, AUDIO DATA, VIDEO DATA, DOCUMENTATION & COMPUTATIONAL SCRIPT.

DIGITAL DATA VOLUME: PLEASE ESTIMATE THE UPPER LIMIT OF THE VOLUME OF THE DATA PER DATASET OR DATA TYPE.

PHYSICAL VOLUME: PLEASE ESTIMATE THE PHYSICAL VOLUME OF THE RESEARCH MATERIALS (FOR EXAMPLE THE NUMBER OF RELEVANT BIOLOGICAL SAMPLES THAT NEED TO BE STORED AND PRESERVED DURING THE PROJECT AND/OR AFTER).

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type.	Not applicable.

[5] These data are generated by combining multiple existing datasets.

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? If so, please describe these issues further and refer to specific datasets or data types when appropriate.	☒ Yes, human subject data ☐ Yes, animal data ☐ Yes, dual use ☐ No If yes, please describe: This project makes secondary use of human tissue samples and clinical data from deceased individuals. For this reason, no clinical identifiers will remain as data are pseudonymized. Additionally, this study has been registered with the Ethical Committee of the UZ Leuven (s63187) and an amendment will be filed for postmortem MRI.

Will you process personal data[6]? If so, briefly describe the kind of personal data you will use. Please refer to specific datasets or data types when appropriate. If available, add the reference to your file in your host institution's privacy register.	☒ Yes ☐ No If yes: - Short description of the kind of personal data that will be used: In this project, we will use age, sex, neuropsychological data, neuropathological parameters (e.g. Braak stage of neurofibrillary tangle pathology, etc.), MRI and proteomic data. Names and identifying information (EAD, EMD,..) will only appear on informed consent forms and raw clinical MRI data, which will be kept in a locked cabinet that can only be accessed by lab personnel and on UZ Leuven PACS, respectively. Only study personnel will have access to all digital files, which will be securely stored on KU Leuven maintained laboratory servers. Each participant will have been assigned a random study code so that data are pseudonymized. For personal and sensitive data, we will abide by the Belgian law on the protection of individuals with regard to the processing of personal data (30th July 2018) and the General Data Protection Regulation (GDPR) 2016/679. For postmortem data, GDPR does not apply. -Privacy Registry Reference: This study has been registered with the Ethical Committee of the UZ Leuven (s63187) and an amendment will be filed for postmortem MRI.

[6] See Glossary Flemish Standard Data Management Plan

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, …)? If so, please comment per dataset or data type where appropriate.	☒ Yes ☐ No If yes, please comment: We do not exclude that the proposed work could result in research data with potential for tech transfer and valorization. The processed mass-spectrometry data could lead to target lead identification for further preclinical development by pharmaceutical companies. Translation between postmortem MRI and clinical MRI data could aid in the development of more sensitive markers for disease in patient populations. Ownership of the data generated in this project belongs to KU Leuven.

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material/Data transfer agreements, research collaboration agreements)? If so, please explain to what data they relate and what restrictions are in place.	☒ Yes ☐ No If yes, please explain: MTAs and contracts with 3rd parties are in place: MTA with Mesulam Center: regulates the use of frozen brain tissue and linked clinical data of this project of n=64 samples. MTA with Netherlands Brain bank (NBB): regulates the use of frozen brain tissue and linked clinical data of this project of n=9 samples. Contract with Ulm University (Germany): regulates the inclusion of autopsy brain tissue and linked clinical data received from Ulm University in the research projects of Dietmar Thal. Contract with University of Bonn (Germany): regulates the inclusion of autopsy brains and linked clinical data received from University of Bonn in the research projects of Dietmar Thal. Contract with GE-Healthcare with Dietmar Thal: end-of-life study cohort including AD brains.
Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain to what data they relate and which restrictions will be asserted.	☐ Yes ☒ No If yes, please explain:

3. Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep **data understandable and usable**, for yourself and others, now and in the future (e.g. in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, Codebook.tsv etc. where this information is recorded).	We will name folders and files with self-explanatory names and version number e.g. "Dataset_masspec_paper_v25Jan2023", Document R code with sufficient detail, including source of code or statistical information Protocols (in Word) will be made in order to facilitate reproducibility of the analyses and acquired results README.txt files will be added where necessary.

Will a metadata standard be used to make it easier to **find and reuse the data**? If so, please specify which metadata standard will be used. If not, please specify which metadata will be created to make the data easier to find and reuse. *REPOSITORIES COULD ASK TO DELIVER METADATA IN A CERTAIN FORMAT, WITH SPECIFIED ONTOLOGIES AND VOCABULARIES, I.E. STANDARD LISTS WITH UNIQUE IDENTIFIERS.*	☐ Yes ☒ No If yes, please specify (where appropriate per dataset or data type) which metadata standard will be used: If no, please specify (where appropriate per dataset or data type) which metadata will be created: Digital files will be named following a standard procedure, so that all the names of all files in a given dataset will be in the same format: All names will start with the date (and time if applicable), followed by the project acronym, a short but specific descriptive name and a version number (containing leading zeros as needed) if applicable. Whenever possible names will be kept under 32 characters. Names will only contain letters, numbers and underscores. Dots will only be used for version control indicators (minor revisions indicated by decimal numbers, and major revisions by whole numbers): YYYYMMDD_HHmm_Project_Experiment_ version.format All changes in the files will be recorded. Data files will be stored in suitably labelled and organized folders and sub-folders, accompanied by a README.txt file in the top level directory of the dataset, containing all the associated metadata. This will allow the data to be understood by other members of the laboratory and add contextual value to the dataset for future reuse. File names and locations will be recorded in the E-notebook to allow electronic records to be linked to the raw data. Metadata will include the following elements: • Title: free text • Creator: Last name, first name, organization • Date and time reference • Subject: Choice of keywords and classifications • Description: Text explaining the content of the data set and other contextual information needed for the correct interpretation of the data, the software(s) (including

	version number) used to produce and to read the data, the purpose of the experiment, etc. • Format: Details of the file format, • Resource Type: data set, image, audio, etc. • Identifier: DOI (when applicable) • Access rights: closed access, embargoed access, restricted access, open access For manuscripts, metadata information will be submitted alongside the final version of the manuscript, including the names, titles and affiliations of all authors. Upon publication, this metadata information will also be submitted to bibliographic databases such as Medline. All manuscripts will be assigned a unique Digital Object Identifer (DOI) by the publisher. Manuscripts will be given a descriptive title, and will be accompanied by keywords provided by the authors in order to maximize their findability.

4. Data Storage & Back-up during the Research Project

Where will the data be stored?	1. Stained sections and residual tissue from autopsy cases: UZ Leuven biobank 2. Microscopic images, databases, proteomic data, MRI from autopsy cases: KU-Leuven J- and L-drives (the group members of the Laboratory of Neuropathology, Prof. Rik Vandenberghe have access), UZ Leuven - UZ data (only the PI has access together with the IT officer of the pathology service) 4. All the relevant algorithms, scripts and software code driving the project will be stored in private online git repositories, and where relevant will be made publicly available upon publication.
How will the data be backed up? *What storage and backup procedures will be in place to prevent data loss? Describe the locations, storage media and procedures that will be used for storing and backing up digital and non-digital data during research.*[7] *Refer to institution-specific policies regarding backup procedures when appropriate.*	KU Leuven drives are backed-up according to the following scheme: - data stored on the "L-drive" is backed up daily using snapshot technology, where all incremental changes in respect of the previous version are kept online; the last 14 backups are kept. - data stored on the "J-drive" is backed up hourly, daily (every day at midnight) and weekly (at midnight between Saturday and Sunday); in each case the last 6 backups are kept. UZ Leuven data are automatically back-uped by UZ Leuven IT and follow standards for patient data safety.

[7] Source: Ghent University Generic DMP Evaluation Rubric: https://osf.io/2z5g3/

Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely. If no or insufficient storage or backup capacities are available, then explain how this will be taken care of.	☒ Yes ☐ No If yes, please specify concisely: There are 2 TB storage space available on UZ data. Another 1TB storage space is available on our KU-Leuven J- and L-drives. There is sufficient storage and back-up capacity on all KU Leuven servers: - the “L-drive” is an easily scalable system, built from General Parallel File System (GPFS) cluster with NetApp eseries storage systems, and a CTDB samba cluster in the front-end. - the “J-drive” is based on a cluster of NetApp FAS8040 controlers with an Ontap 9.1P9 operating system. If no, please specify: /
How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons? *CLEARLY DESCRIBE THE MEASURES (IN TERMS OF PHYSICAL SECURITY, NETWORK SECURITY, AND SECURITY OF COMPUTER SYSTEMS AND FILES) THAT WILL BE TAKEN TO ENSURE THAT STORED AND TRANSFERRED DATA ARE SAFE.* [7]	Access to the KU Leuven data drives is strictly regulated. UZ data files stored in this project will be available only for the PI. Data on the J- and L-drive at KU Leuven will be restricted to the group members of the Laboratory. All cases used in this project are pseudonymized. This means that all researchers have no access to the name or other personalized data. slides are stored in the UZ Leuven biobank that grants access only to authorized staff and also stores the clinical slides of the UZ Leuven pathology department. The research building is restricted by badge system so only employees are allowed in and visitors are allowed under supervision after registration.

What are the expected costs for data storage and backup during the research project? How will these costs be covered?	The costs of digital data storage on KU Leuven drives are as follows: 173,78€/TB/Year for the "L-drive" and 519€/TB/Year for the "J-drive". The costs will be paid from the FWO grant and from long-term budget of Rik Vandenberghe (Mady Browaeys fund).

5. Data Preservation after the end of the Research Project	
Which data will be retained for at least five years (or longer, in agreement with other retention policies that are applicable) after the end of the project? In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).	All data will be retained for at least 10 years after the end of the project conform the KU Leuven RDM policy.

Where will these data be archived (stored and curated for the long-term)?	As a general rule, datasets will be made openly accessible, whenever possible via existing platforms that support FAIR data sharing (www.fairsharing.org), at the latest at the time of publication. For all other datasets, long term storage will be ensured as follows: -Digital datasets (including MRI): files will be stored at the UZ-data drive of the PI at UZ Leuven which is automatically backuped. -Tissue samples and sections: Tissue and stained sections will be stored in the UZ Leuven biobank.
What are the expected costs for data preservation during the expected retention period? How will these costs be covered?	For the period of 10 years approximately 1737,80 € (173,70 €/TB) will be needed to continue data storage on KU-Leuven servers. Currently, no costs are required for biobanking at UZA biobank. If needed, costs will be covered from the laboratory budget and hospital budgets.

6. Data Sharing and Reuse	
Will the data (or part of the data) be made available for reuse after/during the project? Please explain per dataset or data type which data will be made available. *NOTE THAT 'AVAILABLE' DOES NOT NECESSARILY MEAN THAT THE DATA SET BECOMES OPENLY AVAILABLE, CONDITIONS FOR ACCESS AND USE MAY APPLY. AVAILABILITY IN THIS QUESTION THUS ENTAILS BOTH OPEN & RESTRICTED ACCESS. FOR MORE INFORMATION: HTTPS://WIKI.SURFNET.NL/DISPLAY/STANDARDS/INFO-EU-REPO/#INFOEUREPO-ACCESSRIGHTS*	☐ Yes, in an Open Access repository ☒ Yes, in a restricted access repository (after approval, institutional access only, …) ☐ No (closed access) ☐ Other, please specify:

If access is restricted, please specify who will be able to access the data and under what conditions.	In order to respect the patient's privacy, clinical samples will only be available to the research and technical staff involved in the project, not to other groups, studies or purposes. The data will be published in scientific journal and on databases, e.g. BioRxiv. In addition, published data will also be made availble via Lirias. Whenever possible, datasets and the appropriate metadata will be made publicly available through repositories that support FAIR data sharing. As detailed above, metadata will contain sufficient information to support data interpretation and reuse, and will be conform to community norms. These repositories clearly describe their conditions of use (typically under a Creative Commons CC0 1.0 Universal (CC0 1.0) Public Domain Dedication, a Creative Commons Attribution (CC-BY) or an ODC Public Domain Dedication and Licence, with a material transfer agreement when applicable). Interested parties will thereby be allowed to access data directly, and they will give credit to the authors for the data used by citing the corresponding DOI. For data shared directly by the PI, a material transfer agreement (and a non-disclosure agreement if applicable) will be concluded with the beneficiaries in order to clearly describe the types of reuse that are permitted. Data will be published and files with the related results will be made available via the publications (supplementary data) or via common databases (github, ..). Additional data (e.g. histological sections) can be shared online upon request. Unpublished results will not be shared with other parties (except collaborators) prior to official publication. It is the aim of the researchers to publish all data produced.

Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)? Please explain per dataset or data type where appropriate.	☐ Yes, privacy aspects ☐ Yes, intellectual property rights ☒ Yes, ethical aspects ☐ Yes, aspects of dual use ☐ Yes, other ☐ No If yes, please specify: Personal data will not be published, only pseudoanonymized data. If despite all efforts it is not possible to protect the identities of subjects even after removing all identifiers, personal data will not be made public. Physical slides and human tissues will not be shared due to legal issues (MTA contracts, needs for study documentation). Scanned slides can be made available upon request, provided funding for server. We aim at communicating our results in top journals that require full disclosure of all included data. Biological material will be shared upon simple request following publication, unless we identify valuable IP, in which case we will first protect commercial exploitation, either through patenting or via an MTA that restricts the material from commercial use. The MTA that describes the use of data between the collaborating sites indicates that data will first be shared by the collaborators. In the event that a patent will be filed out data will not be shared before LRD will allow that.

Where will the data be made available? If already known, please provide a repository per dataset or data type.	In an Open Access repository In a restricted access repository Upon request by mail Other (specify): The data availability depends on the type of data: Open Access data will be made available via open access publication and the files uploaded in Lirias. Data published in non-open access journals will be thereby published in a restricted access repository. However, an open access version will also be available via Lirias. Protocols and raw data files will be made available in a pseudonymized manner only upon request by E-mail. In the event that scanned slides of histological sections will be requested we will offer to analyse the sections together under the microscope with the requester online via Skype or similar services. This is necessary because we will have to keep the slides for 10 years for documentation purposes. Algorithms and scripts will be shared in public repositories (e.g. github) or upon request by E-mail.
When will the data be made available? *THIS COULD BE A SPECIFIC DATE (DD/MM/YYYY) OR AN INDICATION SUCH AS 'UPON PUBLICATION OF RESEARCH RESULTS'.*	Upon publication of the research results. As a general rule all research outputs will be made openly accessible at the latest at the time of publication. No embargo will be foreseen unless imposed e.g. by pending publications, potential IP requirements – note that patent application filing will be planned so that publications need not be delayed - or ongoing projects requiring confidential data. In those cases, datasets will be made publicly available as soon as the embargo date is reached.

Which data usage licenses are you going to provide? If none, please explain why. *A DATA USAGE LICENSE INDICATES WHETHER THE DATA CAN BE REUSED OR NOT AND UNDER WHAT CONDITIONS. IF NO LICENCE IS GRANTED, THE DATA ARE IN A GREY ZONE AND CANNOT BE LEGALLY REUSED. DO NOTE THAT YOU MAY ONLY RELEASE DATA UNDER A LICENCE CHOSEN BY YOURSELF IF IT DOES NOT ALREADY FALL UNDER ANOTHER LICENCE THAT MIGHT PROHIBIT THAT.* *EXAMPLE ANSWER: E.G. "DATA FROM THE PROJECT THAT CAN BE SHARED WILL BE MADE AVAILABLE UNDER A CREATIVE COMMONS ATTRIBUTION LICENSE (CC-BY 4.0), SO THAT USERS HAVE TO GIVE CREDIT TO THE ORIGINAL DATA CREATORS."* [8]	As detailed above, metadata will contain sufficient information to support data interpretation and reuse, and will be conform to community norms. These repositories clearly describe their conditions of use (typically under a Creative Commons CC0 1.0 Universal (CC0 1.0) Public Domain Dedication, a Creative Commons Attribution (CC-BY) or an ODC Public Domain Dedication and Licence, with a material transfer agreement when applicable).
Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, please provide it here. *INDICATE WHETHER YOU INTEND TO ADD A PERSISTENT AND UNIQUE IDENTIFIER IN ORDER TO IDENTIFY AND RETRIEVE THE DATA.*	☒ Yes ☐ No If yes: For manuscripts, metadata information will be submitted alongside the final version of the manuscript, including the names, titles, email addresses, ORCIDs and affiliations of all authors. Upon publication, this metadata information will also be submitted to bibliographic databases such as Medline. All manuscripts will be assigned a unique Digital Object Identifer (DOI) by the publisher.
What are the expected costs for data sharing? How will these costs be covered?	It is the intention to minimize data management costs by implementing standard procedures e.g. for metadata collection and file storage and organization from the start of the project, and by using free-to-use data repositories and dissemination facilities whenever possible. Data management costs will be covered by the laboratory budget. Journals have a varying publication cost ranging between 0 € (non-open access journals) - 9000 € (open access journals).

[8] Source: Ghent University Generic DMP Evaluation Rubric: https://osf.io/2z5g3/

7. Responsibilities	
Who will manage data documentation and metadata during the research project?	Digital data (MRI, microscopic images, mass-spectrometry,..) will be managed by Jolien Schaeverbeke, clinical data: Rik Vandenberghe. Pathology data: Dietmar Thal, Alicja Ronisz, Simona Ospitalieri, PhD-students of the lab of Neuropathology
Who will manage data storage and backup during the research project?	Digital data (MRI, microscopic images, mass-spectrometry,..) will be managed by Jolien Schaeverbeke, clinical data: Rik Vandenberghe. Pathology data: Dietmar Thal, Alicja Ronisz, Simona Ospitalieri, PhD-students of the lab of Neuropathology For back-up KU-Leuven the IT department guarantees the back-up service of the KULeuven drive that will be used to store the data.
Who will manage data preservation and sharing?	Jolien Schaeverbeke is ultimately responsible for all data preservation. Sharing of data can be done through MTAs with Rik Vandenberghe and Dietmar Thal.
Who will update and implement this DMP?	Jolien Schaeverbeke is ultimately responsible for all data management during and after data collection, including implementing and updating the DMP.