

## Fighting therapy resistance in liver cancer with Hippo pathway inhibitors

### 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.

Dataset name / ID	Description	New or reuse	Digital or Physical data	Data Type	File format	Data volume	Physical volume
		<i>Indicate: N(ew data) or E(xisting data)</i>	<i>Indicate: D(igital) or P(hysical)</i>	Indicate: Audiovisual Images Sound Numerical Textual Model SOftware Other (specify)		Indicate: <1GB <100GB <1TB <5TB >5TB NA	
single cell RNAseq mouse models	Illumina RNA sequencing of murine single cells from HCC livers.	New	digital	Numerical	Fastq files, metadata in .csv and .pdf	<100GB	
Comet Multiplex data	Data generated through proteome multiplexing on the Comet Lunaphore platform. Cell annotation and analysis will be done with QPath and R.	New	digital	Images and numeric	.tif/.rds/.pdf/.csv	>5TB	
single cell RNAseq human HCC	The per sample raw RNA read files from the publicly available bulk RNAseq dataset and associated clinical data were downloaded from the European Genome Archive (EGAS00001005503; DA00468; <a href="https://ega-archive.org/studies/EGAS00001005503">https://ega-archive.org/studies/EGAS00001005503</a> ), <a href="https://doi.org/10.1038/s41467-023-43381-1">https://doi.org/10.1038/s41467-023-43381-1</a>	Reuse	digital	Numerical	Fastq files, metadata in .csv	<100GB	
Microscopy assay	Imaging Acquisition using AxioScan 2 and Leica brightfield. Zen (Zeiss), LAS X (Leica), Photoshop & Illustrator (Adobe), ImageJ and QuPath softwares	New	digital	images	.zen/.lif/.tif/.jpeg/.psd	<100GB	
Publications and presentation data	Publications, and presentation of data Publications generated using Microsoft Word, Endnote, Powerpoint, and Illustrator.	New	digital	Numerical	docx/.pptx/.enl/.pzfx/.psd/.ai	<10GB	
In vitro ELISA assays	Readout data from ELISA assays on in vitro precision-cut tissue slices	New	digital	Numerical	.csv	<1GB	

**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:**

Data from the publication Cappuyns et al Nat Comm will be reused. The per sample raw RNA read files from the publicly available bulk RNAseq dataset and associated clinical data were downloaded from the European Genome Archive (EGAS00001005503; DA00468; <https://ega-archive.org/studies/EGAS00001005503>).

<https://doi.org/10.1038/s41467-023-43381-1>

**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, refer to specific datasets or data types when appropriate and provide the relevant ethical approval number.**

- Yes, human subject data (Provide SMEC or EC approval number below)
- Yes, animal data (Provide ECD reference number below)

S69815 for human data

P064/2024 for mouse experiments

**Will you process personal data? If so, please refer to specific datasets or data types when appropriate and provide the KU Leuven or UZ Leuven privacy register number (G or S number).**

- Yes (Provide PRET G-number or EC S-number below)

S69815

**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.**

- No

**Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material or Data transfer agreements, Research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.**

- No

**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 in the comment section to what data they relate and which restrictions will be asserted.**

- No

#### 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).**

1. Microscopy and MILAN data from human slides will be saved on our KULeuven NAS server at IT O&N4 with back-up provided by KU Leuven ICTS.
  2. Microscopy data from single slides and ex vivo experiments will be saved in a shared drive accessible by all lab members involved in the project. The number of experiment, protocols and stainings will be described in detail in lab notebooks and will also be available in the shared drive.
- Raw data from the RNA sequencing will be saved on ManGO and in a shared drive identified by number of experiment and also indicated in the lab book. Protocols and methodology used will be attached with a clear description to facilitate reproducibility at any time.

**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.**

- Yes

All datasets will be described and summarized in an excel file. In addition, all lab members will have access to this file to be able to find, interpret, use and reproduce the data generated if necessary. Metadata will be saved onto KULeuven LabCollector for our lab.

#### **Data Storage & Back-up during the Research Project**

**Where will the data be stored?**

- Sharepoint online
- Personal network drive (I-drive)
- Large Volume Storage
- ManGO
- Shared network drive (J-drive)

**How will the data be backed up?**

- Standard back-up provided by KU Leuven ICTS for my storage solution

**Is there currently sufficient storage & backup capacity during the project?**

**If no or insufficient storage or backup capacities are available, explain how this will be taken care of.**

- Yes

**How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?**

Research data are stored and managed by the KU Leuven IT department and are accessible only by the researchers working on the project

**What are the expected costs for data storage and backup during the research project? How will these costs be covered?**

Back-up costs of 1 TB ( KU Leuven ICTS) 113.84 euros/year. The lab budget will cover storage and back up costs.

**Data Preservation after the end of the Research Project**

**Which data will be retained for 10 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 preserved for 10 years according to KU Leuven RDM policy

**Where will these data be archived (stored and curated for the long-term)?**

- Large Volume Storage (longterm for large volumes)

**What are the expected costs for data preservation during the expected retention period? How will these costs be covered?**

Yearly storage costs of 1TB data on the K-drive: 56.92 euros. Costs will be covered by internal lab funding.

**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.**

- Yes, as open data

**If access is restricted, please specify who will be able to access the data and under what conditions.**

Question not answered.

**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.**

- No

**Where will the data be made available?**

**If already known, please provide a repository per dataset or data type.**

- KU Leuven RDR (Research Data Repository)
- Other (specify below)

**When will the data be made available?**

- Upon publication of research results

**Which data usage licenses are you going to provide?**

**If none, please explain why.**

- CC-BY 4.0 (data)

**Do you intend to add a persistent identifier (PID) to your dataset(s), e.g. a DOI or accession number? If already available, please provide it here.**

- No

**What are the expected costs for data sharing? How will these costs be covered?**

We don't expect any costs regarding data sharing.

## **Responsibilities**

**Who will manage data documentation and metadata during the research project?**

Prof Tania Roskams, Prof Georg Halder, Prof Olivier Govaere, Prof Jeroen Dekervel

**Who will manage data storage and backup during the research project?**

ICTS-IT department (KU Leuven)

**Who will manage data preservation and sharing?**

Prof Tania Roskams, Prof Georg Halder, Prof Olivier Govaere, Prof Jeroen Dekervel

**Who will update and implement this DMP?**

Prof Tania Roskams, Prof Georg Halder, Prof Olivier Govaere and Prof Jeroen Dekervel bear the end responsibility of updating & implementing this DMP.