# Data Management Plan

## Data Description

* 3D time-lapse microscopy data of Tribolium castaneum embryo development acquired using light-sheet microscopes
* Data stored in NGFF (Next-Generation File Format) format
* Analysis results derived from raw imaging data
* Python code for data analysis
* Scientific manuscript in LaTeX format

## Documentation and Data Quality

* Initial data quality assessment by PhD student and senior scientist
* Data documentation in institutional electronic lab notebook
* Code documentation through Git version control
* Four team members involved in documentation
* Analysis workflows documented in Jupyter notebooks

## Storage and Technical Archiving

* Primary data storage on institutional Omero-Server
* Code stored on institutional Git server
* Daily backups performed by university compute center
* Manuscript drafts on Overleaf with Git backup
* Project duration: 4 years
* Estimated storage costs: 20k Euro + 0.5 FTE IT specialist

## Legal Obligations and Conditions

* Published data licensed under CC-BY 4.0
* Code licensed under BSD-3 clause
* Lab notebook subscription: 10 Euro/month per user
* Institutional policies for data retention (15 years minimum)

## Data Exchange and Long-term Accessibility

* Data published on zenodo.org upon manuscript submission
* Code published as tagged release on institutional Git server
* Manuscript preprint posted on bioRxiv
* Long-term archival copy stored on institutional archive server
* Data preservation guaranteed for 15 years

## Responsibilities and Resources

* PhD student and postdoc/group leader: data acquisition and analysis
* Team members: documentation in electronic lab notebook
* IT department: infrastructure maintenance and backups
* Compute center: long-term storage and server maintenance
* Total team size: 4 people

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