

DAY 2 DAY DATA MANAGEMENT COURSE

FOR LIFE SCIENCES



DAY 2 DAY DATA MANAGEMENT COURSE FOR LIFE SCIENCES

Resources for Research Data Management

Jorge Oliveira



Introduction | BioData.pt

- Portuguese distributed infrastructure for biological data and the **Portuguese ELIXIR node**
- Non-for-profit private association of 12 R&I organizations.



biodata.pt/about

BioData.pt  **PORTUGAL**



Outline

- RDMkit
- Data Management Portal
- Data Stewardship Wizard
- Electronic Lab Notebooks
- FAIRSharing





(<https://rdmkit.elixir-europe.org/>)

- Created in ELIXIR-CONVERGE Project by European Experts
- The Research Data Management toolkit for Life Sciences
- **Best practices and guidelines** to help you make your data FAIR:
 - Findable
 - Accessible
 - Interoperable
 - Reusable



Browse all topics by



Data life cycle

Start here to get an overview of research data management based on stages in the data life cycle.



Your role

Identify your role in research data management, find data management resources relevant for you, and information to help you progress in your career path.



Your domain

Learn about data management tasks that affect your domain or research community, and the solutions adopted to address them.



Your tasks

Find guidelines and solutions for tackling common data management tasks.



Tool assembly

Find concrete combinations of tools and resources assembled into an ecosystem for research data management.



National resources

Find pointers to country specific information resources and national research data management practices.



All tools and resources

Browse the RDMkit's catalogue of tools and resources for research data management.



All training resources

Browse all training resources mentioned in RDMkit pages.



Data Life Cycle

- Descriptions
- Specific considerations
- Links to tasks
- Links to training materials
- Links to DSW



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All training resources

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Institutional policies on research data in Portugal

- Centre of Marine Sciences (CCMAR)
- Instituto Gulbenkian de Ciência (IGC)

Funders

- Fundação para a Ciência e Tecnologia (FCT)

Tools and resources

Tailored to users in Portugal

Developed and/or deployed by institutions and organisations in Portugal.

Show 25 entries

Search: Type here...

Resource	↑↓ Description	↑↓ Related pages	↑↓ Registry ⓘ
BioData.pt Data Management Portal (DMPortal)	This instance of DataVerse is provided by the BioData.pt. We can help you write and maintain data management plans for your research. DATAVERSE	Researcher Data Steward: research Data storage	
BioData.pt Data Stewardship Wizard	Local instance of Data Stewardship Wizard. You can use this tool to create your own Data Management Plans. Data Stewardship Wizard	Researcher Data Steward: research Data management plan	
BioData.pt Service Hub	BioData.pt Service Hub includes several data management resources, tools and services available for researchers in Life Sciences.	Researcher Data Steward: research Data analysis Data storage	
Ready for BioData Management	Capacity building program in data management for the life sciences to empower researchers and institutions in managing their data more effectively and efficiently. Data Stewardship Wizard	Researcher Data management plan	



Spain

Finland

France

Italy

Netherlands

Norway

Portugal

Sweden

Switzerland

United Kingdom

All tools and resources

All training resources



BioData.pt Data Management Portal

(<https://dmportal.biodata.pt/>)

- Instance of DataVerse for Life Sciences Data



Open source research data repository software



BioData.pt Data Management Portal

(<https://dmportal.biodata.pt/>)

- Share, preserve, cite, explore, and analyze research data
- Persistent identifiers (DOI)



BioData.pt Data Management Portal

BioData.pt

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User Guide

Support

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Log In

Coffee Multi-Omics Analysis (BioData.pt)

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Next-Generation Proteomics Reveals a Greater Antioxidative Response to Drought in Coffea arabica Than in Coffea canephora

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Next-Generation Proteomics Reveals a Greater Antioxidative Response to Drought in Coffea arabica Than in Coffea canephora

Version 1.0

Isabel Marques; Duarte Gouveia; Jean-Charles Gaillard; Sónia Martins; Magda C. Semedo; Fernando C. Lidon; Fábio M. DaMatta; Ana I. Ribeiro-Barros; Jean Armengaud; José C. Ramalho, 2022, "Next-Generation Proteomics Reveals a Greater Antioxidative Response to Drought in Coffea arabica Than in Coffea canephora", <https://doi.org/10.34636/DMPortal/WKLVAP>, Home, V1, UNF:6:wurigA1eo1i6H9tTMhKxDQ== [fileUNF]

 Cite Dataset ▾


[Learn about Data Citation Standards.](#)

Dataset Metrics

36 Downloads 



BioData.pt Data Management Portal

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MIAPPE ▲

Investigation ?

Investigation title: Next-Generation Proteomics Reveals a Greater Antioxidative Response to Drought in Coffea arabica Than in Coffea canephora

Investigation description: Analysis of the core proteome of 18 Coffea canephora cv. Conilon Clone 153 and C. arabica cv. Icatu plants and assessed their responses to moderate (MWD) and severe (SWD) water deficits.

Submission date: 18-11-2021

Public release date: 08-01-2022

License: CC BY 4.0

MIAPPE version: MIAPPE 1.1

Associated publication: doi:10.3390/agronomy12010148

Study ?

Study unique ID: coffee:2022:proteomics

Study title: Next-Generation Proteomics Reveals a Greater Antioxidative Response to Drought in Coffea arabica Than in Coffea canephora

Study description: Analysis of the core proteome of 18 Coffea canephora cv. Conilon Clone 153 and C. arabica cv. Icatu plants and assessed their responses to moderate (MWD) and severe (SWD) water deficits.

Start date of study: 2021-11-18

End date of study: 2022-01-08

Contact institution: Instituto Superior Agronomia (ISA), Universidade de Lisboa (ULisboa), Faculdade de Ciências e Tecnologia (FCT), Universidade NOVA de Lisboa (UNL)

Geographic location (country): PT

Experimental site name: Instituto Superior Agronomia (ISA), Universidade de Lisboa (ULisboa), Faculdade de Ciências e Tecnologia (FCT), Universidade NOVA de Lisboa (UNL)

Description of the experimental design: Analysis of the core proteome of 18 Coffea canephora cv. Conilon Clone 153 and C. arabica cv. Icatu plants and assessed their responses to moderate (MWD) and severe (SWD) water deficits.

Observation unit description: Proteomics

Description of growth facility: n 80 L pots, in walk-in growth chambers (EHHF 10000, ARALAB, Albarraque, Portugal)



BioData.pt Data Management Portal

Files Metadata Terms Versions

Citation Metadata ▾

Life Sciences Metadata ▾

MIAPPE ▾

Export Metadata ▾

- Dublin Core
- DDI
- DataCite
- DDI HTML Codebook
- JSON
- OAI_ORE
- OpenAIRE
- Schema.org JSON-LD

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Data Stewardship Wizard

(<https://biodata-pt.ds-wizard.org/>)



- Guided tool to create Data Management Plans
- Real-time Collaborative Support
- Templates (H2020, Science Europe, RDA-machine-actionable and others)
- Developed by ELIXIR and trusted by thousands of people worldwide
- Made with FAIR in mind



FAIR Guidance



9 Will you need consent for any newly collected personal data?

☒ a. No, We do not collect any new personal data

Reusability

☐ b. No, our work on personal data can be done using another legal base 

Reusability

☐ c. Yes, we will collect consent for our specific use of the data

Reusability

☐ d. Yes, we will collect consent for our use as well as reuse of the data

Reusability



FAIR Metrics



Metric	Measure	
Findability	0.70	<div><div></div></div>
Accessibility	0.22	<div><div></div></div>
Reusability	1.00	<div><div></div></div>
Good DMP Practice	0.67	<div><div></div></div>
Openness	0.69	<div><div></div></div>



Electronic Lab Notebooks

- Digital equivalent of Lab Notebook
- Register protocols, results, observations, notes, and other data



Advantages of Electronic Lab Notebooks

- Information is easy to search, copy, and archive.
- Experiments can be linked to samples and filed with little effort.
- Data can be shared simply.
- No more wasted paper and notes written in handwriting that no one can decipher.



Electronic Lab Notebooks

(<https://elab.biodata.pt/>)

- Free and open source
- Designed by researchers, for researchers, with usability in mind.



FAIRSharing (<https://fairsharing.org/>)

Curated, informative and educational resource on:

- data and metadata standards
- databases
- data policies.



Resources Summary

<u>RDMkit</u>	Guidelines, links, good starting place
<u>Data Management Portal</u>	Deposit, annotate, share and publish data
<u>Data Stewardship Wizard</u>	Create Data Management Plans
<u>Electronic Lab Notebooks</u>	Register protocols, results, observations, notes, and other data
<u>https://fairsharing.org/</u>	data and metadata standards, databases, data policies



Other resources



BioData.pt is the Portuguese distributed infrastructure for biological data and the Portuguese ELIXIR node.

[HOME](#)[ABOUT US ▼](#)[SERVICE HUB](#)[Tools & Resources ▼](#)[News & Events ▼](#)[NODE SERVICES](#)[COMMUNITY SERVICES](#)[CREATE YOUR DATA MANAGEMENT PLANS](#)[CURATED MARINE RESOURCES](#)[PUBLICATIONS](#)[INDUSTRY ENGAGEMENT](#)[RESOURCE WEBSITES](#)[STANDARDS](#)[Data Handling](#)

PLATFORM	TITLE	RESPONSIBLE ORGANIZATION
-Tools	Bioinformatics Docker Images Project	IBMC - Instituto de Biologia Molecular e Celular
-Data	CorkOakDB	IGC - Instituto Gulbenkian de Ciência
-Tools	D-cellerate	IGC - Instituto Gulbenkian de Ciência
-Compute	ELIXIR PT Computing Services	INESC-ID



Other resources

TOOLS & SERVICES




DATA	OMICS	SERVICE HUB	SYSTEMS BIOLOGY	TRAINING	OTHERS
BECA5	4Pipe4	Bioinformatics	CoBAMP	Bioinformatics Crash Courses	Cov2ID
BioData.pt DSW	ADOPS	Computing	merlin	Education and Training in Bioinformatics	EbolalD
COEUS	Biome-Shiny	Data Management	OptFlux	Gulbenkian Training in Bioinformatics	Python Video Annotator
CorkOakDB	BLAST Database Manager		StemCellNet	Ready for BioData Management	MENSAdB
DMPortal	D-cellerate		PseudoChecker		OR and DXR
EvoPPI	Docker Images Project		StemChecker		SpotOn
GoEnrichment	Eagle				SynPred
MitoBreak	Geco3				SPOTONE



















BioData.pt Service Hub

BioData.pt Service Hub

Data Solutions for the Life Sciences









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BioData.pt Service Hub

BioData.pt is the Portuguese research infrastructure for data in the life sciences, whose mission includes providing services to support the research community in adding value to biological data.

These services span the three categories below:

**Bioinformatics Services**

**Data Management Services**

**Computing Services**



If you still feel lost...

Data Management Services



Project Data Management

We carry out data management planning and data management activities of research projects or project applications, in a package that can include any of the following components, as required:

- Data Management Plan draft/consulting
- Data storage (with access to Data Management Portal)
- Data curation/annotation
- Data Management Plan execution (e.g. data publication after project is complete)
- Training
- Electronic Case Report Forms (eCRFs)



Data Management Portal

An online platform for data management and publication.

You can access the portal [here](#) and register for free.



Ready for BioData Management

Capacity building programme to empower researchers in Data Management, which includes a range of training offers:

Lectures

- Introduction to Data Management in Science
- Demystifying Data Management Plans

Workshops

- Introduction to Data Management Plans

Courses

- Advanced Data Management Plans
- Day-to-day Data Management

You can consult the [Ready for BioData Management website](#) for more information and check [BioData.pt events](#) for regular courses or request a course to be delivered to your organization.



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Thank you

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Acknowledgements

- ELIXIR Implementation Study "Impact evaluation at Node-level – getting it done"
- ELIXIR-CONVERGE Project "Connect and align ELIXIR Nodes to deliver sustainable FAIR life-science data management services"



DAY 2 DAY DATA MANAGEMENT COURSE FOR LIFE SCIENCES

Organization:

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