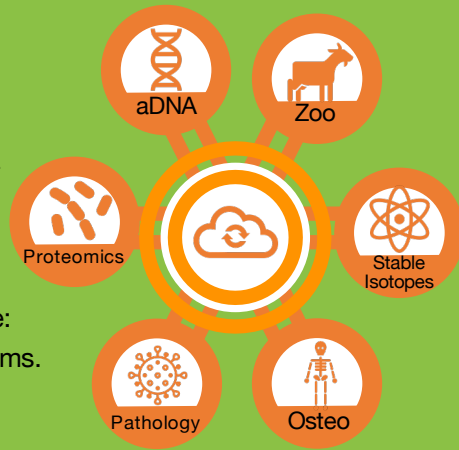# Are you being FAIR with bioarchaeological data?

Background:

- Bioarchaeology is becoming "big data".
- This is from a finite amount of material.
- Data can be made FAIR (Wright and Richards 2020).
- In this work:
  - FAIR was defined.
  - A questionnaire was completed by 154 bioarchaeological specialists to determine:
    - Level of interactivity between specialisms.
    - How FAIR bioarchaeology is.
  - Solutions were proposed.

aDNA · Zoo · Proteomics · Stable Isotopes · Pathology · Osteo

FAIR

Find able	Persistent IDs/ ORCiDS/ Citations	Metadata schemas	PIDs in metadata	
Access ible	Communication protocols	Harvestable metadata and Endpoints	Open Access	Repositories
Inter operable	Metadata models	Standardised file formats	Ontologies	Controlled vocabulary
Reus(e) able	Future ready	Systematic documentation (syst. doc.)	Naming conventions	Detailed metadata	Legal requirements

Define ˅ Needs ˅ Analysis ˅ Evaluate ˅ Solutions

Is it FAIR?

Is it FAIR?		🧬	🦴	🦠	(bacteria)	⚛	🐐
F	Persistent identifiers	✓	-		✓	-	
	ORCiDs	✓		-	✓	✓	✓
A	Open Access	✓	✓		✓	✓	✓
	Raw accessible	✓		-	✓		
I	Metadata	✓			✓		
	Data type	FASTQ	PDF	PDF	RAW	PDF	PDF
	Level of process	Raw	Fully	Partly	Raw	Fully	Fully
R	Copyright (none)	✓	✓	✓	✓	✓	
	Syst. Doc.	✓	✓	✓	-		
	Data reused	✓		✓	-		✓
DMP	Create	✓			✓	✓	

>50% participants ✓
50% participants -

- Reuse of data is important.
- Some extent of reuse present.
- No standardised process.
- Data is not FAIR.

Link to the data: https://tinyurl.com/8sep4dj8

Results:

Summary of results

Key: F A I R DMP Percent ##

Most achieved element →

↑ Most FAIR specialism

	Open Copyright	ORCiD	Open Access	Raw data Accessible	Syst. Doc.	Create DMPS	Persistent Identifiers	Metadata Schema
🧬	86	100	100	100	71	57	71	57
(bacteria)	100	100	100	100	50	75	100	75
⚛	100	100	67	100	38	56	50	25
🦴	75	33	75	43	71	13	-	14
🐐	86	64	63	47	35	24	40	20
🦠	67	50	-	50	50	33	50	-

We NEED to make Bioarchaeological data FAIR

Solution:

- Standardised data management procedure
- "Google-style" Federated Search Interface
- "as open as possible, as closed as necessary" (Landi et al. 2020).
- More training of why FAIR matters
- Universal Persistent Identifiers for artefacts

Thanks:

The Archaeology Data Service, Jessica Hendy, Holly Wright and those that completed the survey.

Want help? Please let me know.

For a copy of the report or help/support in similar projects contact me at:

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www.AlfieTalks.com/

References:

Landi, A., Thompson, M., Giannuzzi, V., Bonifazi, F., Labastida, I., da Silva Santos, L. O. B., and Roos, M. (2020). The "A" of FAIR–as open as possible, as closed as necessary. *Data Intelligence*, 2(2), 47-55. 1

Wright, H. and Richards, J. (2020). *D.5.3 Data Curation Policy*. E-RIHS. [Online]. Available at: https://doi.org/10.1080/00934690.2018.1511960 (accessed 13 May 2020).