# Paste this content into the Etherpad at: <https://pad.carpentries.org/fair-4-leaders-20YY-MM-DD>

# List of attendees

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# Episode 1. Why are we here? Why should you know it?

## Exercise 1. Get to know each other (4 - 5)

Introduce yourselves telling each other why you have joined this course.

Then, try to find one professional/academic thing that your group has in common.   
For example:  
- we all had our latest grant proposals accepted by MRC  
- we are all desperately searching for an experienced lab technician

(Green Room)

We all:

(Blue Room)

We all:

(Red Room)

We all:

(Yellow Room)

We all:

(Orange Room)

We all:

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## Exercise 2. You and data sharing (3)

Thinking of how you and your group make data or code available to others and how your group uses others’ data, write “+1” next to any statements that match your own experience:

- We do not really share data, we only publish the results as part of a publication:

- We have made our data available only as Supporting Information for a paper:

- We have made our data available as both Supporting Information and as a dataset in a repository:

- We have made our data/code available without having it published in a paper:

- We share the code in GitHub or another code repository:

- We make the code available on demand:

- We have used a dataset from a public repository:

DONE:

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## Exercise 3. Why we are not doing Open Science / Data Sharing already

Discuss Open Science barriers, and type below the reasons for not being open:

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## Exercise 4. Your presence

Write +1 next to any statements that match your own experience:

- I currently supervise at least 2 postdocs:

- I have promoted at least 3 PhDs:

- I revise at least 4 articles a year:

- I have been a member of a grant funding panel:

- I have been a member of a school/college/university committee:

- I have contributed to development of an institutional/community policy:

- I have been involved in the selection process for fellows / lecturers / readers:

- I am a member of a Research Council’s Council:

- I am editor of a journal:

- Any other activities through which you exert academic influence in the research community?

DONE:

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## Exercise 5. Your minions

Write +1 if your soon-to-be leaving postdoc:

- Has released software:

- Has made any dataset(s) available under an open licence:

- Can demonstrate outreach activities:

- Is active in some scientific community group:   
 (e.g. journal club, carpentries, ReproducibiliTea)

DONE:

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## Exercise 6. Lottery winner

Imagine a situation in which you suddenly lose a postdoc because she/he has won the National Lottery and won’t be coming to work any more (or more realistically, they were hit by a bus). Write +1 next to any scenarios to which you can relate:

- everything should be recorded in their notebook, which you hope is in the office:  
- (But frankly, you have never checked how good their lab notes are):

- everything should be in the team’s Electronic Lab Notebook, and you can quickly check if that is the case:

- all data, excel, presentations and paper drafts are in a shared network drive:

- some data and documents may only be in the postdoc’s PC/laptop:

- every now and then, you check people’s data and notes, so you are fairly confident they follow good practices and you know where you can find what is needed:

- your group has a “data management” policy/plan to which all members are introduced as part of their induction, so at least in principle all should be fine:

- you have left it to your group to organise such trivial matters and you hope they did it well:

- your lab manager should know it all:

- there was that old postdoc who kept track of things but they left last year:

- you are getting nervous:

DONE:

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## Feedback: Intro episode

On the scale 0 - 5 (zero a terrible lesson, 5 a fantastic lesson)

How good was this lesson:

-

On the scale 0 - 5 (zero not at all, 5 yes it was productive way of spending my time)

Was it worth your time:

-

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# Episode 2. Being FAIR

## Exercise 1 (5+3)

Data from publications

## Exercise 1a. Impossible protocol

You need to do a western blot of the protein Titin, the largest protein in the body with a molecular weight of 3,800 kDa. You found a Titin-specific antibody sold by Sigma Aldrich (‘SAB1400284’) that has been validated in western blots and immunofluorescence. The Sigma SAB1400284 webpage lists the publication by Yu et al 2019 (<https://doi.org/10.1002/acn3.50831>) which uses the antibody.

**Can you find a complete protocol for separation and transfer of this large protein?**

* Hint 1: Find the Western blot in the methods section.
* Hint 2: Follow the references

How easy was it?

Answers:

-

## Exercise 1b. Impossible average

The Ikram 2014 (<https://doi.org/10.1093/jxb/err244>) paper contains data about various metabolites in different accessions (genotypes) of *Arabidopsis* plants*.* You would like to calculate the average nitrogen content in plants grown under normal and nitrogen limited conditions.

**Please calculate the average (across genotypes) nitrogen content for both experimental conditions.**

* Hint 1. Data are in Supplementary data (Experiment 2 - <https://academic.oup.com/jxb/article/63/1/91/552676#supplementary-data> )
* Hint 2. Search for nitrogen in paper text to identify the correct data column.

Answers:



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## Exercise 2- Public general record – FAIR elements

Have a look at the following record for a data set in Zenodo repository:

Boehm et al. (2020). Confocal micrographs and complete dataset of neuromuscular junction morphology of pelvic limb muscles of the pig (Sus scrofa) [Data set]. In Journal of Anatomy (Vol. 237, Number 5, pp. 827–836). Zenodo.

<https://doi.org/10.5281/zenodo.5045374>

Let’s check which elements make it FAIR?

FINDABLE (persistent identifiers, easy to find data and metadata):

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ACCESSIBLE (The (meta)data retrievable by their identifier using standard web protocols):

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INTEROPERABLE (The format of the data should be open and interpretable for various tools):

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REUSABLE (data should be well-described so that they can be replicated and/or combined in different settings, and any conditions on reuse stated clearly with a licence):

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## Exercise 3. FAIR and You (3+2)

The FAIR acronym is sometimes accompanied with the following labels:

* Findable – Citable
* Accessible - Trackable and countable
* Interoperable – Intelligible
* Reusable – Reproducible

Using those labels as hints describe how each of FAIR principles directly benefit you and your team as the data creators.

Findable – Citable

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Accessible - Trackable and countable

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Interoperable – Intelligible

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Reusable – Reproducible

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DONE:

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## Exercise 4. FAIR Quiz (3+2)

Which of the following statements is true/false (T or F)?

* F in FAIR stands for free.
* Only figures presenting results of statistical analysis need underlying numerical data.
* Sharing numerical data as a .pdf in Zenodo is FAIR.
* Sharing numerical data as an Excel file via GitHub is not FAIR.
* Your group website is a good place to share your data.
* Data from failed experiments are not re-usable.
* Data should always be converted to Excel or .csv files in order to be FAIR.
* A DOI of a dataset helps in getting credit.
* FAIR data are peer reviewed.
* FAIR data accompany a publication.
* Open Science relies strongly on the internet:
* Open Access eliminates publishing costs

DONE:

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## Feedback: FAIR episode

On the scale 0 - 5 (zero a terrible lesson, 5 a fantastic lesson)

How good was this lesson:

-

On the scale 0 - 5 (zero not at all, 5 yes it was productive way of spending my time)

Was it worth your time:

-

## Feedback: Open Science and FAIR

1. How do you feel about the presented topics after this session (type +1 next to the statement that best describes your feeling):

• I am more confused:

• I have a better understanding of them now:

• My knowledge has not changed much:

2. How was the pace of the lessons:

• Too fast:

• About right:

• Too slow:

3. If the lessons could be 5 minutes longer, what would you add or spend more time on:

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4. What could be improved:

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5. What did you like:

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