**Measuring lung circadian patterns in mice**

**1. What data will you acquire during the project:** Please describe the type of data you will generate (for example ‘flow cytometry data’) as well as file formats and data volume..

-Imaging -TIF. many gb

-RNA seq - FASTA/FASTQ files. Can be 1gb/mouse -> 20 mice = 20 gb

Age, strain, organ/mouse weight, potentially lung slices - of mice

2 year mouse project

**2. How will you store and organize the data:** Please describe how you will store and organize your data, what metadata will you capture in what form. Explain how you will document the data during the duration of the project

* store locally / cloud service
* Microscope type, magnification, capture intervale, pixels, exposure time

--metadata RNA-Seq & Analyses

reference build genome for mapping

quality control parameters e.g. phred score cutoff

sequencing platform; read counts & Lengths.

PCR protocol for DNA amplification

primer set used

MM used

two step PCR; anneal adapter step? or one step?

no. samples taken; sampling schedule

including an interaction effect?

--metadata Mice

sample size

treatment and treatment schedule if applicable

strain/genetic background

any genetic modifications

-document with electronic lab notebook

- could be documenting raw values from images into excel

Folder organisation for the data files

i.e. mouse 1… mouse 2

**3. How will you share the data:** Please describe the strategies for data sharing, licensing and access information.

-BioImage Archive / IDR for microscopy data. - can publish all of the timecourse images

-ArrayExpress - RNA Seq

- RNA Seq data will likely become publicly available

-OpenSource licence - few limitations to accessing the dataset GPL

**Comments from Room 1:**

* Age/strain of the mice might be better in the metadata section rather than acquired data.
* Good data organisation plan.
* Should note the environmental conditions of the mice in the metadata section.
* Good metadata for the RNA-Seq.
* Should decide between local storage or cloud storage so they’re updated correctly, might not be updated correctly if stored in two locations.