Using OneNote as a Laboratory Notebook

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Laboratory Notebooks
What should we be doing?

• Expectations and responsibilities
  – Document what we are doing
  – Be able to find results
  – Timely/traceable/retrievable
  – Checked

• Legal responsibilities
Why OneNote?

• Digital Notebook
• Gathers notes – handwritten or typed – drawings, screen clippings, images and audio content
• Notes can be shared
OneNote
Storing notebooks

• Where can we save OneNote notebooks?
  – Local drives (OneNote 2016)
  – Microsoft
    • OneDrive
    • SharePoint
Electronic Laboratory Notebook (ELN)

https://babraham.sharepoint.com/sites/ELN/SitePages/Home.aspx

or go to Office.com and search Sharepoint/ELN
Electronic Laboratory Notebook (ELN)
Electronic Laboratory Notebook (ELN)
Electronic Laboratory Notebook (ELN)

Table of contents

Thursday, March 28, 2019 11:58 AM

Protocols
- Animals
- Collection
- Sequencing
- Experiment 123
- Experiment 456
- Experiment 789
Electronic Laboratory Notebook (ELN)
Storage and organisation

SharePoint
Storage and organisation

SharePoint

ELN

JM
Notebook 1
Notebook 2
Notebook 3

SA
Notebook 1
Notebook 2

FK
Notebook 1
Notebook 2
Notebook 3
Section A
Section B
Section C

Page 1
Page 2
Page 3
Exercise 1

Accessing the Electronic Laboratory Notebook (ELN) area on Sharepoint

https://babraham.sharepoint.com/sites/ELN/SitePages/Home.aspx
### RNA Seq

**Tuesday, March 26, 2019 2:47 PM**

**10X Single cell RNA Seq**

- Video

File://C:/Training/OneNote/OneNote exercises.pdf

file://C:/Training/General%20Training/babraham%20bioinformatics%20train%20labels.pdf

https://babraham.sharepoint.com/p/j/s/LBl/JoM/1uuR/R5S2hFv/ruPsrW6OKcv/8Kb/9Br5y4PaMn0m92haBiWWe?e=--Mn

https://tinyurl.com/Jo-14579
What is a Page?

“It’s not a word document...

... It’s a stream of consciousness...”

Simon Andrews, Head of Bioinformatics
What is a Page?

Page B
29 January 2019 12:28


Protocol
First we collected some water.
Then we filtered the water.
To make tea:
Boil the water (only once – Jo is very fussy about using freshly drawn water and not re-boiling it. Simon thinks this is nonsense). Then apply hot water to tea of choice for required time. Add milk/sugar as required.

To make coffee:
See separate protocol as there are many sources of coffee and machines with which to provide it in boardroom.

Biscuit Tea Coffee
Simon Jemima Dodger Builders occasionally
Anna occasionally From milk, 1 sugar
Tea Lekitchen various Caution: extremely fizzy
Jo bby Web, black, no milk
Laura Millionaire’s shortbread milk milk
Add Sections and Pages
Add Sections
Add Sections
Add Sections
Add Sections
Text page

Tuesday, March 25, 2019 8:08 PM
Add sub pages
Exercise 2

Opening a new OneNote (Online) notebook and setting it up
Exercise 2

Create a Notebook to look like this – sections, colours, pages, titles and levels of organisation
What can you do in OneNote?
What can you do in OneNote?

• Add text
• Make tables
• Insert images
• Insert/attach files
• Add links
Stuff you don’t need

• Audio
• Translation tool
• Stickers
• Emojis 😊
• ...things you don’t need in a laboratory notebook
How to add things
New page

Wednesday, March 27, 2019 9:25 AM

Click anywhere on the page to start typing.
## Text page

Tuesday, March 26, 2019  3:08 PM

Click anywhere on the page to start typing.

<table>
<thead>
<tr>
<th>Name</th>
<th>Biscuit choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simon</td>
<td>Jammie dodger</td>
</tr>
<tr>
<td>Jo</td>
<td>Ginger nut</td>
</tr>
<tr>
<td>Anne</td>
<td>Chocolate</td>
</tr>
</tbody>
</table>
Images

- File
- Web search
- Clipboard
  - copy & paste
  - screen grab/clip
Images
Images

+ Shift + S

+ Shift + 4
Exercise 3

Adding text, tables, formatting and images
Exercise 3

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Milk</th>
<th>Coffee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>Simon</td>
<td>milk</td>
<td>occasionally</td>
</tr>
<tr>
<td></td>
<td>Anne</td>
<td>Prose milk, 3 sugars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Felix</td>
<td>various</td>
<td>Caffeine extremely</td>
</tr>
<tr>
<td></td>
<td>Jo</td>
<td>weak, black, no milk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laura</td>
<td>milk</td>
<td>milk</td>
</tr>
</tbody>
</table>

---

Protocol

First we collected some water.
Then we heated the water.

To make tea:
Boil the water (only once) – as it is very fuzzy about using freshly drawn water and not re-boiling it. Simon said this is non-essential.
Then apply hot water to tea of choice for required time. Add milk/milk alternatives/sugar as required.

To make coffee:
see separate protocol here as there are many sources of coffee and machines with which to provide it in Bioinformatics.
Add files and links

• File
  – Attachment
  – File printout

• Link
  – Point elsewhere
Insert a File

Notes on Data
Thursday, March 28, 2019 10:09 AM

You can:

- Attach a file or file printout – OK for small files. If you amend the original file, it doesn't update paper notebook.

- You can add a link to a file – but if this file

- With bigger datasets such as sequencing, have their own storage and archiving so

- Or just reference where in Sierra in the.

- Create a non-dynamic link referencing: "O:\Training\One Note\test PDF.pdf"

- Use screen shots to document what you
Insert a File
Add links
Add links

• Link to files stored elsewhere
  – Large datasets
  – Obligations regarding finding data
Add links

• Link to files stored elsewhere
  - Direct link doesn’t work – tries to make the file path a URL
  - 2 options
Add links

1. Give file location
   - **Shift + Right Click** on file in finder > *copy as path*
   - *(mac: control and click on file, then press option and select copy as pathname)*
   - Paste text into OneNote as a record of where the file is stored
   - Make sure the file location doesn’t change
Add links
Add links

New page
Wednesday, March 27, 2019  9:25 AM

"D:\Training\training course checklist.docx"
Add links

2. Turn the path into a URL

• Remove ‘http’ and type ‘file://’ at the start, remove all backslashes (\) and replace with forward slashes (/)
• Remove spaces and replace with %20
• Not a dynamic link
• Copy this link into browser and it should go to file location
"O:\Training\One Note\OneNote ELN key facts.docx"
Exercise 4

Adding files and links

http://www.bioinformatics.babraham.ac.uk/training.html#onenote

OneNote Course Data files (zip)
Other useful stuff

• Draw
• To Do list
• Quick note
Embryo collections

Wednesday, April 3, 2019   12:04 PM
Write notes on slides

- Send PowerPoint or Word docs to OneNote
- Annotate with a stylus on your tablet
- Highlight and finger-paint

Switch to OneNote in your taskbar
OR
Ctrl + N on your keyboard
Annotate images
Annotate images
To Do list

Protocols

RNA Seq

10X Single cell RNA Seq

DNA methylation

Contents

Page X

Experiment 42

Add files

Experiment 1

ChIP Seq

Page B

Bioinformatics

Experiment 1

Test section

Remove Tag

✓ To Do

★ Important

★ Question

★ Remember For Later

Definition

Highlight

Contact

Address

Phone Number

Website To Visit

Idea

Password

Critical

Project A

Project B
Table of Contents

• Create a Table of Contents with Links
• 2016: Insert > Link > My Notebook
  and navigate through the Sections/pages to add
• OneNote 2016, 10 and mac
  [[pagetitleofexistingpage]]
• OneNote Online – copy URL for notebook/section/page and add this as a link
Table of Contents
Page backgrounds and lines

- View > Paper Style
- View > Paper color
Other hints and tips

- Maths functions

OneNote 10

Get started with Maths

1. Write your equation in ink or type it using the keyboard
2. Select your equation
3. Tap the Maths button

Quick Start Examples

- Solve for $x, y$:
  \[
  \begin{align*}
  x + y &= 3 \\
  x - y &= 1
  \end{align*}
  \]
- Plot in 2D:
  \[
  \frac{x^2 + 5x + 1}{x^2 + 1}
  \]
- Round: 5.65
<table>
<thead>
<tr>
<th>Protocols</th>
<th>RNA Seq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment 42</td>
<td>test</td>
</tr>
<tr>
<td>Contents</td>
<td>DNA methylation</td>
</tr>
<tr>
<td>Bioinformatics</td>
<td>Page X</td>
</tr>
<tr>
<td>Experiment 1</td>
<td>10X Single cell RNA Seq</td>
</tr>
<tr>
<td>Test section</td>
<td>Add files</td>
</tr>
<tr>
<td></td>
<td>CHIP Seq</td>
</tr>
<tr>
<td></td>
<td>Page B</td>
</tr>
</tbody>
</table>

**RNA Seq**

Tuesday, March 26, 2019  3:47 PM

- **10X single cell RNA Seq**

- **Video**

- [File: C:\Training\OneNote\OneNote exercises.pdf](file://C:\Training\OneNote\OneNote exercises.pdf)
- [File: C:\Training\genera\Training\babraham%20bioinformatics%20min%20labels.pdf](file://C:\Training\genera\Training\babraham%20bioinformatics%20min%20labels.pdf)
- [https://babraham.sharepoint.com/jo/s/FLN/JM/3uJH9BS2hVFBmPzWKCKowBlJ9br5vuPhCmo0r7ha81Wz7e-MHe3t](https://babraham.sharepoint.com/jo/s/FLN/JM/3uJH9BS2hVFBmPzWKCKowBlJ9br5vuPhCmo0r7ha81Wz7e-MHe3t)
- [https://tinyurl.com/so-13579](https://tinyurl.com/so-13579)
Search Text in an Image
References

• OneNote is not a reference management system
• You can link to a reference management system such as Reference Manager or EndNote if you must
Exercise 5

Other useful tools
Sharing OneNote notebooks

- Sharepoint ELN
- OneDrive
- Other locations
Sharing a page - OneNote 2016

Pellentesque porta gravida tempor. Pellentesque erat, erat pretium porttitor aliquam, diam sapien vestibulum nunc, a semper risus turpis vel ex. Proin sollicitudin, nullam sed bibendum tempus, nisi velit aliquet quam, ultrices posuere malesuada nec nunc eget. Fusce id rhoncus risus.


Sharing a page - OneNote 10
Sharing OneNote notebooks
Versions
Versions

Notes on Data
Thursday, March 28, 20

You can:
- Attach a file
- If you amend the original paper notebook:
  - You can add a
  - With bigger data, they have their own
  - Or just reference

Babraham Bioinformatics
Versions

Page Versions

10X Single cell RNA Seq

12/09/2019 14:55 Jo Montgomery Current

27/03/2019 08:52 Jo Montgomery

26/03/2019 15:48 Jo Montgomery
Exercise 6

Share your notebook with someone in the room

https://tinyurl.com/test-lab-book
Suggestions for use as a Laboratory Notebook

Example Laboratory Notebook

https://tinyurl.com/template-lab-book
Exercise 7

Set up an outline for a laboratory notebook to suit your experiments
The future: Windows 10 and Office 2019

• Microsoft is ‘sunsetting’ OneNote2016
• OneNote for Windows10 looks more like the mac or online version
OneNote for Windows 10
Further help

https://support.office.com