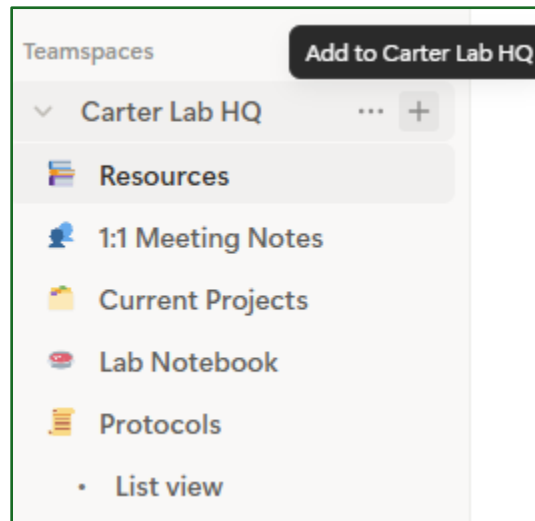


## Using Notion to Manage an Academic Lab – Morgan Carter, August 2025

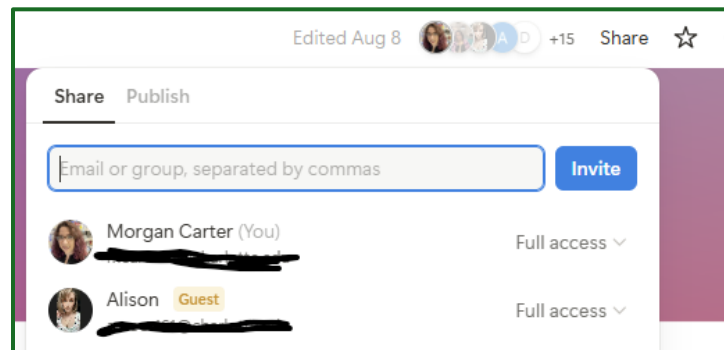
### *The Basics*

**Step 1.** Create an [education account](#) which is free.

**Step 2.** Create Teamspaces for whatever categories you want.



**Step 3.** Invite lab folks by email! Click the share icon up at the top right. Unfortunately, you have to invite them individually if you have more than one, but it's only inconvenient initially.



Ok but what should you put in it? This document has examples of resources page, project management, 1-on-1 meeting notes, lab notebook templates, and protocols.

Resources Wiki-Style Page Example

We have a Resources page that links to Google Drive files, like our inventories, and also to pages with professional development or other resources. This is dynamic and grows as we create new resources based on lab members needs. It is also our hub for lab meeting schedules and relevant forms.

Resources

Home

Resources are centralized here, whether a link to a Google Doc or a Page within notion. Please use these, contribute to them, and let us know if there are additional resources that would be useful.

Lab Policies

Handbook

Biosafety SOP

Chores and Basic Lab Skills How To

Sequencing To Send Out

Writing Checklist

Wet Lab Resources

Microbiology and Lab Basics

Deciphering Lab Jargon

Basics of Aseptic Technique

Working with Mycetohabitans

Mycetohabitans Extraction Log

What type of water to use?

Research Photography

Microscopy 101 (Under Construction)

Forms

Conference Attendance

Dietary Restrictions

Reference Letter Request for Dr. Carter

Must fill out reference letter requests at least 2 weeks before due date (1 month preferred)

Lab Website Update

Demographics Survey

Bioinformatics

Tools Explored

Code Toolkit

Getting into bioinformatics resources

Computational Resources

Inventories

Item Inventory

Oligos and Primers

Seed Inventory

Strain Inventory

Lab Library

Professional Development

Conferences

Professional Societies

Fellowships

Graduate and Medical School Admissions Resources

CVs/Resumes

Job Boards and Internships

Writing Resources

Teaching Resources

Lab Meetings

Old Lab Meeting Schedules

Fall 2025 Lab Meetings

2025 Summer Challenge

Recommended Papers To Read

Previous focused journal-club schedules with links to key relevant papers in our field.

Running annotated spreadsheet of endohyphal bacteria papers

Mycetohabitans Literature History

2024 Symbiosis Collection - for broader reading

Misc

MBL Advanced Research Courses - talk with Morgan if you would like to apply for one

Conferences

Owner

Tags

Created time

Morgan Carter

Professional Development

+ 1

June 2, 2024 1:27 PM

Conferences that have been or are regularly attended by members of the lab. Since the links often change from year to year, googling the name is probably the most effective way of finding more info. When you attend a conference, please fill in this form. For more information about the society's that host these meetings, check the Scientific Societies page.

Plant-focused

Plant Health - American Phytopathological Society's Annual Meeting

Mycetohabitans Literature History

Owner

Tags

Created time

Morgan Carter

Empty

October 8, 2024 9:52 AM

This is not an exhaustive list but is a good place to start (feel free to add to):

Burkholderia rhizoxinica and Burkholderia endofungorum

Partida-Martinez and Hertweck, 2005. Nature Pathogenic fungus harbours endosymbiotic bacteria for toxin ...

Partida-Martinez, et al., 2007: Current Biology Endosymbiont-Dependent Host Reproduction Maintains Bacterial...

## Project Management Example - [Notion's guide to Kanban boards](#)

**Current Projects**

This is an overview of all the projects in the lab. They are tagged with active grants or grant proposals, assigned to the person currently working on them, and also list undergraduate researchers involved. It may be useful to link your related lab notebook entries to these "cards". We can use these lists to set priority order when useful. There is a "No Assign" list that includes tasks or projects that are not currently "owned" by anyone.

Board view

Bhuwan Abbot 8	Dallas 7	Ruth 6
<b>Mycetohabitans Pangenome Analysis</b> Bhuwan Abbot NIH MIRA Myc Pangenome	<b>FON/Paenibacillus discovery</b> D Dallas USDA EWD FON/Paeni	<b>Mycetohabitans Liquid Growth</b> R Ruth NIH MIRA Myc Methods

Example from our lab about how we organize. Each person has a column of tasks that we move around to indicate priority order. Each project is a page and is assigned to a certain lab member. They are also marked by whether they are contributing to a grant or manuscript and the current status, or a date if there is a deadline. These pages may link to lab notebook entries, but are mostly used to track **Publishable Pieces** and what is needed.

Our "projects" are divided out based on essentially what constitutes 1 figure or 1 experiment. So one project is not typically a whole paper, unless there are clear sub-projects (sub-item) of that listed out. Each page has short info about what needs to be done for this to be "publishable".

When new undergraduates start in the lab, we add more information to help onboard them for their project, including a paragraph of background, a set of 5 papers and guide to reading papers, and a timeline of tasks expected for the project.

**Mycetohabitans Solid Growth**

Assign: R Ruth  
Date: Empty  
Grant/Project: NIH MIRA  
Manuscript: Myc Methods  
Parent item: Empty  
Status: Done  
Sub-item: Empty

Comments

Figure

- Pictures of petri dishes showing growth amounts (taken in imaging box)
  - streak out if possible (remember to switch sticks)

Methods

- medium, temp, and timing for growth; photos taken

Results

- Mycetohabitans* prefers X solid medium (1 paragraph)

**Fluorescent labeling of Mycetohabitans strains**

Assign: Bhuwan Abbot  
Date: May 19, 2025 → July 30, 2025  
Grant/Project: NIH MIRA  
Manuscript: Myc Methods  
Parent item: Empty  
Status: In progress  
Sub-item: Empty

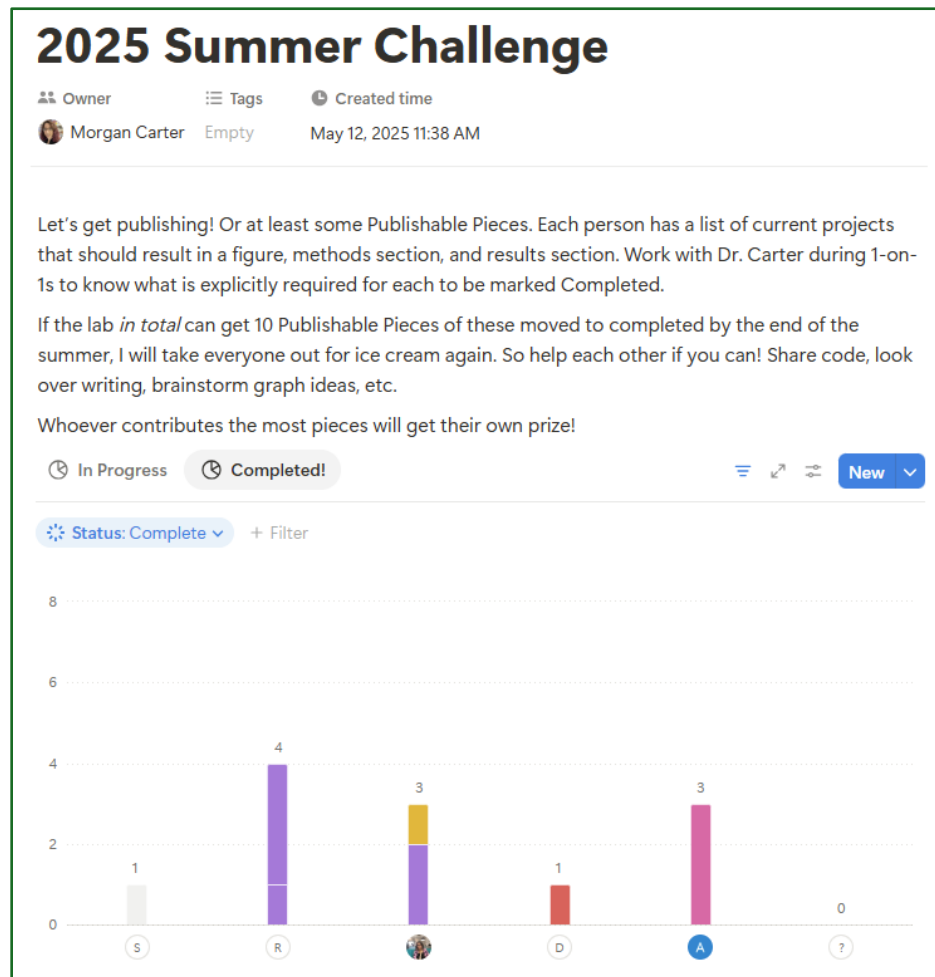
Comments

Table of Contents:

- Overview
- Background
- Reading
- Timeline

## Side Note – “Publishable Pieces” Challenge


Using the projects board, you can create a graphical view and sort by which projects are In Progress or Completed. This works great to creating activities like Challenges or tracking the pieces for a particular paper so everyone can see the progress in real time. The following is an example that I did one summer to encourage students to write-up and make figures for their different projects.





Students had to send draft versions of a methods section, results section, and figure for their project to count it as completed. I provided comments for editing and signed off when it was reasonably ready to slot into a paper, i.e. it had necessary details and a logical presentation of what was done. We paired this with a Slack channel and time in lab meeting to critique figures and method write-ups.

## 1-on-1 Meeting Notes


Students must fill in a weekly template before meeting with me. The template has a button that will automatically add a new date with the toggle tabs for the 6 different categories. These all stay on one page and students are encouraged to link or mirror other parts of the lab notebook to review during the meetings.





 Add cover  Add comment

### 1:1 Meeting Notes

This is a common space for all 1-on-1 meeting notes with Dr. Carter. Each page has a button that will automatically add a new template to help you structure your thoughts and progress updates.

 [Copy me! Template](#)


 Aylha 1:1

 Alison 1:1

## Copy me! Template

### Degree Progress

^Remove if not a graduate student

 Click the [Add a new 1:1](#) button to create a new meeting toggle with today's date.

 Add a new 1:1

#### ▼ Long-term goals in progress

- *What is the main question you are trying to answer? Or hypothesis you are testing? Or technique/resource you are developing?*

#### ▼ Progress on short-term goals from last week

- *How far did you get on the goals you outlined last week?*

#### ▼ Other research updates

- *Additional progress that wasn't part of the outlined goals*

#### ▼ Questions

- *These can be from papers read, about directions to go, what help you need troubleshooting, etc.*

#### ▼ General updates

- *Anything related to classes, degree progress, funding, fellowship applications, etc.*

#### ▼ Short-term goals for the next week

- *List of achievable, clear goals for the next week*

#### ▼ Planning ahead

- *Intermediate planning, prioritization across tasks/projects, upcoming changes like semester transitions, etc*

## Side Note – Degree Progress Page

### Degree Progress

Please go through and keep only the options relevant to your degree (M.Sc. vs Ph.D.).

### Degree Timeline

**Degree Timeline** ☰ ↕ 🔍 🗒️ 🔄 New ▼

>> January 2024 February March 📅 Manage in Calendar Year ▼ < Today >

8 15 22 29 5 12 19 26 4 11 18 25 1 8 15 22 29 6 13 20

					➔
					➔
					➔

+ New


### Courses Taken


Course	Semester	Req Satisfied

### Committee

☐ Paperwork submitted

#### Members

 **PhD:** Major Advisor and three additional faculty that hold Graduate Faculty status, with 2+ members being from Biological Sciences. A final member must hold tenure (Professor/Associate Professor) from another department (Graduate Faculty Representative)


 **MSc:** Major Advisor and two additional Biological Sciences faculty that hold Graduate Faculty status.


1. Morgan Carter (Major Advisor)
2. List

#### Committee Meetings

Please insert the date and create a page summarizing what happened at the meeting and advice for moving forward

### Exams

 **PhD:** Written Qualifying Exam by end 5th semester, Oral Qualifying Exam by end of 6th semester, written proposal and oral defense by end of 6th semester.

 **MSc:** Comprehensive exam by end of 3rd semester, thesis proposal by the end of 3rd semester


#### ▼ Exam X (Template)

- ☐ Scheduled, room booked, and committee notified
- ☐ Appropriate written component turned in to committee
- ☐ Appropriate form submitted to graduate school

There is a link on the template to a Degree Progress page where we plot out the time that will be spent on different projects, when committee meetings should be held, and what milestones are needed.

## Lab Notebook Template

We keep records (and regularly download for backups) electronically for our experiments. Each person has a page that they can personalize, but there is a template which contains some explanations and examples and an option for keeping up with tasks. Students are encouraged to add photos and/or link directly to data in our lab Google Drive.

**Lab Notebook**

This is the central gateway for lab notebook entries divided by person and tagged with organism/project.  
Lab notebook template (in "Read me if you're new here!")

ListTableTable

New

Read me if you're new here!

Alison LabNotebook

Aylha

Bhuwan

Caroline

Dallas

Lea

Morgan

Ruth

Sara

Ty


Old Members Go Below This Entry:

Eric

Atalia

Laira

Paola

**Read me if you're new here!**

Lab NotebookEmpty

ResearcherEmpty

4 more properties

Comments

Add a comment...

Lab Notebook Example

What do I put in my lab notebooks entries?

Where To Start: Exploring the Functionality

Code Storage

Keeping a Lab Notebook External Resources 1 (video) and 2 (blog)

Lab notebook template: copy me!

**My Lab Notebook!**

## My Lab Notebook!

### ▼ Todo

Add a week!

### ▼ Logs

Examples:

@ June 28, 2024

I subcultured some Mycetohabitans (strains X and Y) into KB in 10 mL tubes to prepare for Z experiment.

@ September 4, 2024

I plated some Mycetohabitans (strains X and Y) on LB+glycerol (1% agar).

I did a PCR of colonies from two days ago using the universal 16S primers from the oligo inventory. I used OneTag and the following cycling conditions/temperatures:

### ▼ My Projects

Filter according to the property "assign", it would only show the projects assigned to you.


#### Current Projects

New

 Watermelon Pathogenicity Assays

Protocols Page

The final teamspace is a protocols database that contains pages for the major lab protocols, tagged by relevance. There is a brief template and students are encouraged to link to these protocols when used in their lab notebooks.

 **Protocols**

This is the central gateway for common protocols in the lab, tagged with relevant organisms or themes. Please add new protocols here as you develop them or find useful ones, and link to these pages in your lab notebooks for reference.

List view

Copy Me! Template

Storing Mycotoxins

Extract-N-Amp Equivalent DNA Extraction Protocol V2 (Quick&Dirty)

Mycotoxins Extraction

Chemically Competent Transformation

Creating Competent Cells

Conjugation

Curing Fungus of Bacterial Associations (Rhizopus)

Electrocompetent Cell Prep and Transformation

Electrocompetent Cell Prep and Transformation of Mycotoxins, Sucrose Counter Selection

Electrophoretic Mobility Shift Assay (EMSA)

Fluorescent In Situ Hybridization (FISH)

Fungus/Bacterial Reassociation

June 27, 2024 12:07 PM

June 18, 2025 11:18 AM

November 13, 2024 1:13 PM

June 2, 2024 3:14 PM

June 27, 2024 12:08 PM

July 2, 2024 9:10 AM

June 27, 2024 12:40 PM

June 27, 2024 12:24 PM

June 27, 2024 12:33 PM

June 26, 2025 3:05 PM

November 12, 2024 2:06 PM

June 27, 2024 12:12 PM

June 28, 2024 9:53 AM

DNA

Bacteria

Fungus

Mycotoxins

Rhizopus

Fungus

Bacteria

Bacteria

Transformation

Bacteria

Transformation

Bacteria

Transformation

Mycotoxins

Rhizopus

Bacteria

Transformation

Bacteria

Transformation

Protein

DNA

Bacteria

Mycotoxins

Rhizopus


Bacteria

Fungus

Bacteria

Luteibacter/Pestalotiopsis

Fungus



### Copy Me! Template

Created

June 27, 2024 12:07 PM

Tags


Empty

Who wrote

Empty

+ Add a property

Comments

 Add a comment...

Introduction

Materials

List

Procedure

1. List