

LabCollector

"Your Laboratory management solution"

User's guide

Electronic Lab Notebook (ELN)

Version 3.691 – March 2019



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1- INTRODUCTION

Thank you for choosing one of AgileBio's solutions for the management of your lab. The **ELN add-on** is a web-based solution allowing efficient management of all your experiments in the lab. An unlimited number of books, experiments and pages can be created. Powerful tools are included to produce added value to your notebook:

Text/Table Interface	Activity Log
Mass Doc/Picture/Molecules Import tools	Electronic Signatures*
Chemical reaction/Diagram Designer	Task time reports
Template/Workflow management	Pdf/Print/Zip export
Versioning	

The ELN provided by AgileBio is suitable for research projects, technical platform service activities and company projects.

ELN add-on can be fully integrated with LabCollector, the LIMS we developed for life science research labs, Pharma and biotech industries. Indeed, you can link information from LabCollector to an experiment and a page.

LabCollector is a copyrighted product from AgileBio.

* Requires an extra purchase.

2- GETTING STARTED

You can get the **ELN add-on** by downloading from www.labcollector.com. LabCollector software has to be installed first as it contains the framework. LabCollector support documents for installation are available on our website. **ELN add-on** can be installed on any operating system (Windows, MacOS X and Linux). Installation is performed by AgileBio on cloud hosted instances.

As a general note, making a backup of LabCollector prior to installing or updating a new add-on is recommended.

A changelog is included in the download package. It is also available by navigating the browser URL on LabCollector at */eln/CHANGELOG.txt.

1/Manual mode:

Unzip and paste ELN add-on folder in the extra modules folder. For Windows, it would look like:

```
C:\Programs\AgileBio\LabCollector\www\lab\extra_modules\eln
```

Open LabCollector, the ELN add-on module is now activated. Click on the module, a confirmation screen will help you to proceed with the installation.

2/Automatic mode from LabCollector interface:

You can also add the ELN add-on via the LabCollector Menu

Admin > Setup > Upload/Add Addons > Upload Addon ZIP > Add Addon

Return to the LabCollector homepage, the **ELN add-on** module is now activated. Click on the module to finish the installation.

The size of the ELN folder might exceed the limit of maximum size allowed for POST data. If this occurs you will have to edit the file php.ini:

```
; Maximum size of POST data that PHP will accept.  
; Its value may be 0 to disable the limit. It is ignored if POST  
; data reading is disabled through enable_post_data_reading.  
; http://php.net/post-max-size  
post_max_size = 80M
```



If the zip file is too heavy the automatic mode may not work, in this case please proceed with the manual mode

The add-on will remain in a 30 days free trial mode until you save the final license **Admin > Setup > License**. To obtain a valid license, you have to copy and send the computer activation key to AgileBio. You may also use the client area of the labcollector.com website to obtain or update a license.

3- OVERVIEW

A Lab Notebook is used to:

- Record and share experimental results
- Ensure traceability of research results (date, author, identity of samples, equipment usage)
- Facilitate knowledge transfer
- Help you in a qualitative way

An Electronic Lab Notebook allows you to do all of the above more easily, while also minimizing or eliminating the following common problems:

- Illegible handwriting
- Notebooks in various inconsistent forms
- Loss / disappearance of notebooks
- Unsigned pages
- Images that tarnish or degrade over time
- Results that are left out of an experiment
- Loss of raw data
- Pages that fall out after years of use

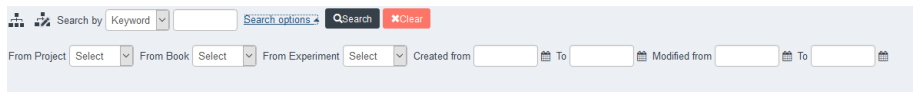
The ELN also adds the following important and useful functionalities:

- Your lab knowledge repository is easily searchable
- Sharing - notebooks can be shared instantly with colleagues
- Directly link to sample and instrument records used in experiments
- Built in diagram, image and spreadsheet tools

The ELN's main interface is composed of:




- A top line with basic information displayed
 - LabCollector (or Lab image) that redirects to the main home page
 - User information
 - Logout button

- A menu bar on the top right with 5 tabs:
 - Home
 - New Book/Project
 - Add Log Entry
 - Options
 - ADMIN (for configuration, templates, and signatures)
- A search menu by keyword or tag with filters (under *Search options*) on Project, Book, Experiment and date.



- Timeline showing the last ELN events
- A Tree View on the left to switch easily between books, experiments and pages.
- A viewer to display book, experiment and page details.

The LabCollector ELN is based on an architecture with 3 levels:

1.  Book: it can be used in a classic way, i.e. single user, or in project mode, i.e. multiple collaborators in one book. The number of books is unlimited.
2.  Experiment Folder: this is an organizational level, an experiment can regroup several pages, and you can setup task lists and more.
3.  Page: where you annotate your experiments and sign/close when the step of this page is done.

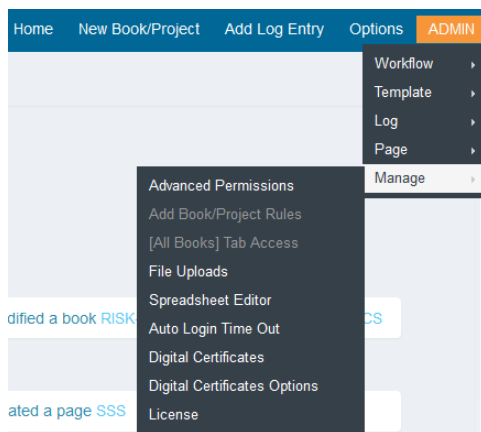


The page is the level corresponding to the page of your paper lab notebook.

Note: a language selector is integrated to switch easily between English, French, German, Spanish and Portuguese interfaces (see [chapter 5-](#)).

4- ADMIN TAB: How to configure your ELN

Only users with an administrator profile can access the **ADMIN** menu in its entirety. Under **ADMIN > Manage** is where you will do the general configuration of your ELN, so if you are deploying the ELN for the first time be sure to check all steps in this section.

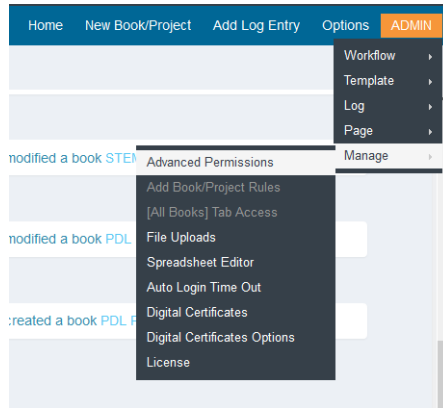


From the ADMIN menu, you can also manage workflows, pages/chemical reactions/spreadsheet templates and custom fields to standardize writing procedures of experiments (see [Chapter 7-](#)).

Managers can get an overview of the ELN activity using the Log Activity (last 50 entries), the audit tools and the task time reports. Filters by user and/or date range are available to execute more specific audits. For more details see [Chapter 8-](#).

Super-administrator, administrators can manage digital certificates, page validation and signing from this menu. This last section is also accessible to some users. For more details on these functions, see [Chapter 9-](#) of this user guide.

4-1. Permissions



In **ADMIN > Manage > Advanced Permissions**, the super-administrator can manage users' permissions:

- Basic selection corresponding to actual users' permissions.
- Advanced selection: super-administrator can define PI for each group and PI can define specific user's permissions.



Read the following points carefully to ensure each user has the correct access. Each user account should be checked for correct permission level and access.

- Admin level users have extra rights because they have admin level access. Admins have significant permissions to view and edit many things by default throughout LabCollector and add-ons.
- Being an admin doesn't involve VAB (View all books) permissions. But if the user is PI, they do see all books of their group (or all books if the group = Full Access)
- VAB access is not set initially. This must be done by the super-admin or admins.
- The default group of Full Access should be reviewed for all users to ensure appropriate content is available for viewing and editing.
- VAB and full access will allow an admin to view and edit all books.
- Individual books/projects have access rights as well.

Basic selection opens two more tabs:

1/ **Add Book/Project Rules**, where super-administrator selects if an administrator, staff and/or user can create new books.

Add Book/Project Rules

User level	Create New Book/Project
User	<input type="checkbox"/>
Staff	<input type="checkbox"/>
Administrator	<input checked="" type="checkbox"/>

Save

2/ **[All Books] Tab Access**, allows the super-administrator to configure access to All Books.

[All Books] Tab Access

Full Access for Admin (All Books)

- ON (Read/Write)
- OFF
- SPECIFIC (Select Admin User)

Save

View Access for Staff (All Books)

- ON (Read)
- OFF

Save

View Access for Users (All Books)

- ON (Read)
- OFF

Save

Full Access for Admin (All Books)

- ON (Read/Write)
- OFF
- SPECIFIC (Select Admin User)

Specific Access

Admin	View/Write All Books
ALL	<input type="checkbox"/>
Admin	<input type="checkbox"/>
Staff	<input type="checkbox"/>
New (Microbiology)	<input type="checkbox"/>
Current (Microbiology)	<input type="checkbox"/>
Staff (string)	<input type="checkbox"/>
Current_user (string)	<input type="checkbox"/>

Save

Advanced selection allows for the choice of a PI for each group, and permissions for all users.

The PI can then define permissions for users in their group, like the super-administrator.

Per user, permissions are:

- **All:** All permissions
- **C/EW:** user can create and edit workflows
- **C/ET:** user can create and edit templates
- **ANB:** user can add new books
- **VAB:** user can view all books

Manage Permissions

Select Mode

Basic Advanced

Define PI Full Access ▾

Administrator	PI Rules
Admin [admin FULL]	<input checked="" type="checkbox"/>
Claire Donohue [clairdonohue]	<input type="checkbox"/>

✔ Save

All Permissions Full Access ▾

		All	C / E W	C / E T	A N B	V A B
User [login]	Role		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Admin [admin FULL]	ADMIN /PI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
andrea [andrea]	STAFF	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Claire Donohue [clairdonohue]	ADMIN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Staff [staff]	STAFF	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Staff Test [StaffTest]	STAFF	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Staffp [staffp]	STAFF+	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
User [user]	USER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Visitor [visitor1]	VISITOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Legende
 All - All Permissions
 C / E W : Create/Edit Workflow
 C / E T : Create/Edit Template
 A N B : Add New Book
 V A B : View All Books

✔ Save

4-2. File upload options


The super-administrator and administrators can manage file uploads and page associated files options.

Information


PHP max upload size: 50 M

MySQL max allowed packet: 100 M


Configuration

 Allow / Disallow remove files associated to pages :

ON OFF



 Activate/Deactivate FileSystem Storage Option :

ON OFF


 Max file size authorized in database :


10M


Path where files will be stored :

 Try 

Legend

 Not Tested

 Correct Path




 Path error

Size limits per file are defined in the information section.

When files are upload in **Associated files** section, you can activate an option to block their deletion. For more information, please see [section 6-8](#).

You can also manage the storage system of the files uploaded in the ELN. If this option is not activated, files will be registered in the database by default.

If this option is activated, files will be registered in a defined folder. A folder has to be defined in the path section. To verify your path, you can test it (**Try** button + legend:

 not tested,  correct path,  incorrect path).

You can customize the maximum size/file authorized in database, for example here:

- 0M: Files will be stored in the defined folder (path section).
- 100M: Files will be stored in the database
- In the other cases, like on the image above, **1/**Files will be registered in the database if the file is $\leq 10M$ and **2/**Files will be registered in the defined folder if the file $> 10M$.

4-3. Spreadsheet Editor

The Spreadsheet Editor is an Excel-like tool, you have two options: either using the Java or Zoho Spreadsheet. You have another built-in spreadsheet which is the Flat Spreadsheet that is automatically enabled (see [Flat spreadsheet and spreadsheet Data](#))



Note that to use a JAVA spreadsheet your web-browser must support java plugins. At the time of releasing this manual, only **Internet Explorer** is compatible with JAVA spreadsheets, we thus recommend using Zoho Spreadsheet.

To use Zoho Spreadsheet you have to comply with the Zoho [terms of service and privacy](#).

Zoho Spreadsheet has a free mode that allows using this tool with **300 user document session per month** (only one user account can be linked to your LabCollector ELN). To know more about Zoho pricing check [here](#).



If you are using LabCollector ELN from a **domain accessible to the internet** (cloud hosted or other) Zoho Docs is just used to display the information but no data is saved on the Zoho platform, all your spreadsheet data is saved locally on your LabCollector ELN server. In this case you just need the **APIkey** - do not fill the token field.



If you are using LabCollector ELN from a local server **not accessible by internet (you need at least outbound internet access)**, the file will first be saved in Zoho Docs and then on the LabCollector database. Once, the spreadsheet is saved on LabCollector database it is automatically erased from Zoho Docs.

To enable Zoho Spreadsheet:

1. Go to **ADMIN > Manage > Spreadsheet Editor**
2. Select Zoho Sheet API

Configuration

Select the Spreadsheet Editor :

Java Jxcell Applet Zoho Sheet API

Insert Apikey generated with Zoho (<https://officeapi.zoho.com>) :

Token generated with Zoho (only needed if the server is not reachable from internet) :

 [get/refresh token](#)

Save

3. Create an account at [Zoho](https://officeapi.zoho.com) using the following link <https://officeapi.zoho.com>.
4. Once your account is created, copy and paste the API key. *If your ELN is hosted on a cloud server or a server reachable by internet skip step 5.*

DASHBOARD

API PROFILE	
API Key	4f28ae9a98c3a0b8ef76f7e74ccf6c3c Custom Logo
Account Owner	Sauvadet
Email Address	sauvadet@aglebio.com
API Key Generated On	Jul 7, 2017
Company Name	AgileBio
Account Type	Commercial

powered by

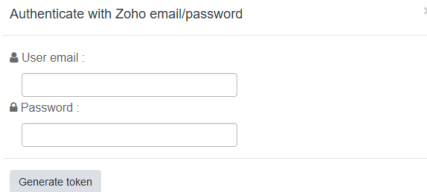
PLAN DETAILS	
Plan Type	Free Partner
Subscription Period	Mar 7, 2018 - Apr 7, 2018
API Calls Limit	300
API Calls Remaining	293

[Change Plan](#)

Note: on this page, you can also follow your API Calls.

5. If you are on a local instance, you also need to generate a token. Click on "get/refresh token". A window will open, enter your Zoho login/ password,

and press **Generate token**. The token will be entered on the main page under “Token generated with Zoho”



Authenticate with Zoho email/password ×

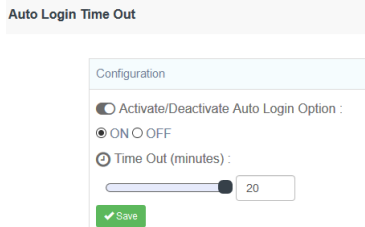
User email :

Password :

6. Click on save to validate your settings.

For more details on how to daily use Zoho spreadsheet, please refer to [Flat spreadsheet and spreadsheet Data](#).

4-4. Auto login time out



Auto Login Time Out

Configuration

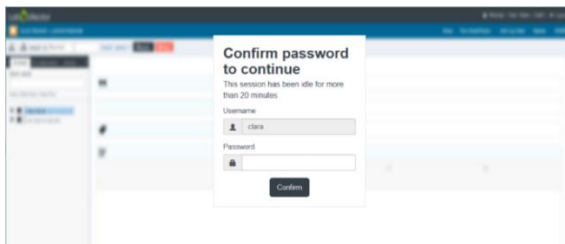
Activate/Deactivate Auto Login Option :

ON OFF

Time Out (minutes) :

20

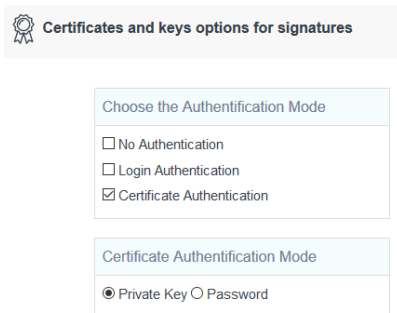
Users can activate this function to block access to their ELN if it is not in use. Once activated, choose the Time Out in minutes, from 5 to 20 minutes, then save.



4-5. Digital Certificates Options

Authentication can be configured at this stage via **ADMIN > Manage > Digital Certificates Options**:

- No authentication (no password, no certificate needed)
- Login Authentication: authentication with your LabCollector login
- Certificate authentication
 - By password: authentication with the password generated when you create your digital certificates
 - Or by private key: authentication with the private key file saved in **.pem** and the certificate password



The screenshot shows a configuration window titled "Certificates and keys options for signatures" with a ribbon icon. It contains two sections:

Choose the Authentication Mode

- No Authentication
- Login Authentication
- Certificate Authentication

Certificate Authentication Mode

- Private Key Password

For more information on digital certificates and electronic signature, please read [chapter 9-](#).

4-6. License

In this section, you can find the information about your license.

If you are installing LabCollector for the first time, copy the machine key and send it to support@agilebio.com. A license key will be sent and you need to enter this here.

ADMIN TAB: How to configure your ELN

License Options :



Your Machine Key :

torv1u21ijyvcezVPHL%Vo5JB/KoYbXtrzH-CjxJPhvJF2PBCjGUPLffadoB0.LFNhgXYBfDGHVM-KwISod

Your Current License :

mz4xxwu8tUguonq2SRASDGI1CMHMInRieovAJO-uLIo7:CxlMO-
DWISqQXZhMD/IHGoHRUU:qPIEXFFVhFOHorUbmactmUhrVmmi./xotx8u.|4&
(Issued on 2017/07/11)

Enter a New License Number:

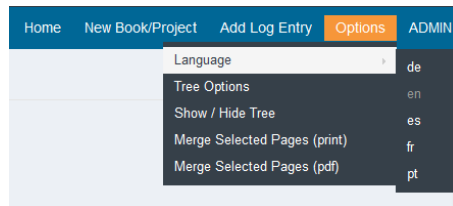
✓ Save License

You can also check the options covered by your license:

- Digital Certificates
- Chemical Drawing
- PhotoBank

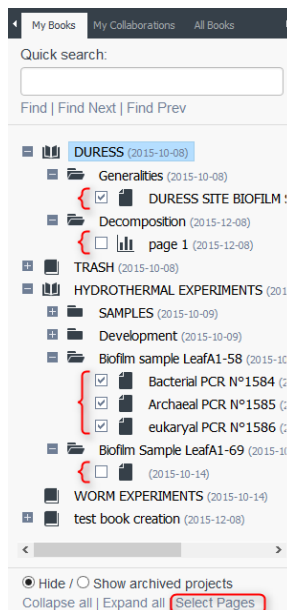
5- OPTIONS

From the **Options** menu, you can select to display the ELN interface in English, French, German, Spanish or Portuguese. Tree View management options are available in this tab (see above).



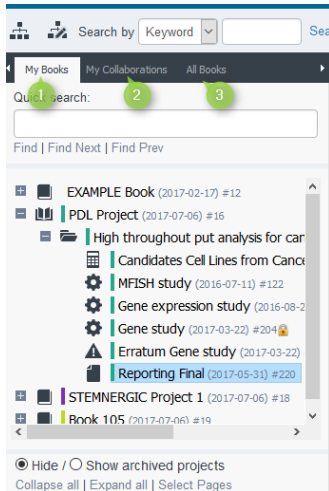
Through this menu you can also access tools to merge/compile two or more pages in print / pdf views (report arrangement).

To select pages, click on **Expand All**, then **Select Pages** button and check pages.



Then choose your printing method (PDF or print) through the **Options** menu: click on merge selected pages (print) or merge selected pages (PDF).

The Tree View panel displays books, experiments and pages. Three tabs are available to manage the Tree View:

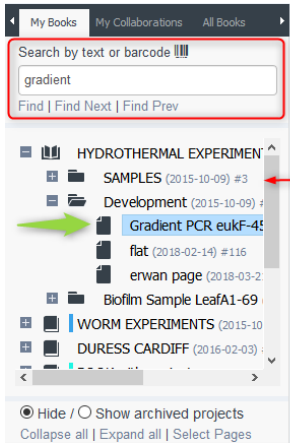


1. **My Books** (default setting): displays all books created by the user.

2. **My Collaborations**: displays books for which the user has been identified as a collaborator. A collaborator can view, edit and modify experiments and pages (depending on their rights).

3. **All Books** (only displayed with Admin status or the users with permission to see all books): displays all books of the lab or group.



A **Quick search** engine by keywords (focus on names only) or barcode is integrated allowing users to quickly find books, experiments and pages. Navigation between results is possible using **Find Next** and **Find Previous**.



The separation between the Tree View and the main panel is flexible. To modify the tree view dimension, click on the separation line between both panels and drag it to the left or to the right according to your needs.

Users can hide or show archived books to refine the Tree View display. Archived projects are hidden by default.


A **Drag & Drop** function is activated in the tree. You can move experiments (and all the dependent pages) from one book to another and move unclosed pages from one experiment to another, as you need. Rules apply to do this, i.e. you cannot move a closed page without moving the whole Experiment folder.

You can hide the tree view using  or display the Tree View options using  next to the search menu or from the Menu bar: **Options > Tree Options**.

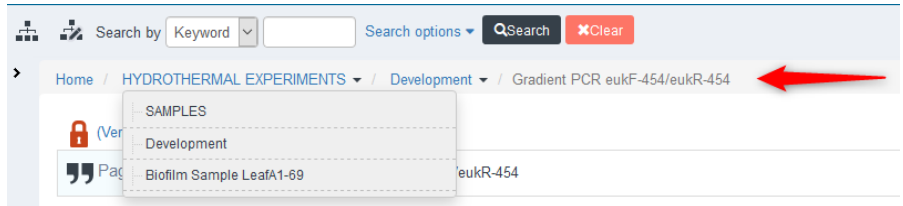
- Several options are available to manage information displayed in the Tree View:
- Hide closed pages
 - Display only created or modified pages
 - Select a time period
 - Use ASC/DESC button to display books and experiments by ascending/descending order
 - By default, Tree View elements are displayed by date of creation but you can sort them by alphabetical order.

Tree Option	
<input type="checkbox"/>	Hide closed pages
<input type="checkbox"/>	Show Experiments and Pages created ▼ from 2014-12-22 to 2015-12-22
Sort Books and Experiments : <input checked="" type="radio"/> Sort ASC <input type="radio"/> Sort DESC	
<input type="checkbox"/>	Alphabetical sort

✕ Close ↻ Refresh




As a reminder if a filter is applied, the tree view icon will be shown like this . Thus, if you wish to see all the books you have permissions to, click on the Tree View option and remove filter selection.

Navigation in a book can also be done without the tree using the breadcrumbs trail on the top of the book, experiment or page.



6- ELN DAILY USE

As described on the [OVERVIEW](#) chapter, LabCollector ELN is based on an architecture with 3 levels:

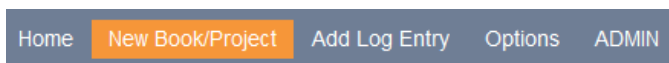
1.  Book: it can be used in a classic way, i.e. single user, or in project mode, i.e. multiple collaborators in one book. The number of books is unlimited
2.  Experiment Folder: this is an organizational level, an experiment can regroup several pages, you can set up task lists and more.
3.  Page: it is where you annotate your experiments and sign/close when the step of this page is done.







The page is the level corresponding to the page of your paper lab notebook. Book and experiment levels are designed for organizing work coherently.

6-1. Book: How to create and manage

To create a new book, click on **New Book/Project** button in the main menu. To have access to this tab you must have the correct permissions (see [Chapter 4-1](#)).



A new window will open so you can enter the details of your book:

Add New Book	
 Book Name :	<input type="text"/>
 Page Tags :	<input type="text" value="Tags"/>
 Project Code :	<input type="text" value="Autocomplete Field"/> <input type="button" value=""/>
 Color Code :	<input type="color"/>

Choose a name and add tags to help you with your search if desired (**Write the tag and press ENTER to validate each tag**). You can also relate a book to a project code existing in LabCollector and insert a color for the book. To validate your book creation, use the button **Submit**.

Once the book creation is finished, you can retrieve your information on the viewer. You can edit the book's name, colors, tags, project code and use the field content if needed using **Edit** buttons or **double click** on each section to activate the editing function.

Book: name and color can be edited. The color is designed to make it easier to find relevant entries (see image).

The screenshot shows the ELN interface for editing a book. The book title is 'HYDROTHERMAL EXPERIMENTS'. A color selection tool is overlaid on the 'Book' field, showing a color spectrum from blue to red. The 'Project Code' is 'CANC-105' and the 'Tags' field contains 'leukemia'. The 'Content' field is also visible, showing a title 'CHEMEMECO (Colonization processes in CHEMOSynthetic ECOSystems)' and a paragraph of text.

Project Code: these are the same project codes you have in your LabCollector. To create a new one go to the LabCollector main interface **TOOLS> Manage Project Codes**. For more information check the [LabCollector Manual](#) Project Code Chapter.

Tag: you can add a new tag by entering its name and pressing enter to validate. Tags are bookmarks for easy searching; you can find this section on the other levels as well.

Content: for more details on the text editor, see [Chapter 6-4](#).

The screenshot shows the ELN interface for editing a book titled 'PDL Project'. The 'Project Code' is 'CANC-105' and the 'Tags' field contains 'leukemia'. The 'Content' field is active, showing a diagram of the MAPK/JERK signaling pathway and a paragraph of text. The diagram illustrates the pathway from ligand binding to receptor activation, leading to the activation of Ras, Raf, MEK, and ERK, which then leads to the activation of transcription factors like Elk-1 and c-Jun. The text discusses the role of the MAPK/JERK signaling node as a tumor suppressor and the objective of the project to understand its differential activation in various tumor types.

Recent evidence indicates that the MAPK/JERK signaling node can function as a tumor suppressor as well as the more common pro-oncogenic signal.

Objective of this project

- MAPK role pro-oncogenic signal vs tumor suppressors
- Understanding the differential nature of activation of the MAPK/JERK pathway in each tumor type

Users having access/collaborating :

Name	Type	Phone Number	E-mail
Xavier	Owner	01 75 43 08 61	sarazinh@gmail.com
Clara Nunes	Collaborator		
Laura	Collaborator		

Created by : Xavier (2017-07-06 14:59:44) Modified by : Xavier (2017-07-11 12:00:08)

Archive

The book owner can now define several collaborators (1) who will be able to view and modify the book. The book cannot be deleted but can be archived (2).

Use the link **Manage user's access** on the right (1) to access collaboration options.

Users having access/collaborating :			Change owner	Manage users' access
Name	Type	Phone Number	E-mail	
John Doe López	Owner	96	vaz@agilebio.com	

If you have created the book or you are an administrator/PI, you must have the permissions to manage this on a particular book.

NEW ! The owner (and the super-administrator) can change the ownership of a book. Just click on the link Change owner and select a new owner before validating.

With Basic Permissions (see [Chapter 4-1](#))

User Name	Group	Allow User Access
[blurred]	group 1	<input type="checkbox"/>
[blurred]	group 2	<input type="checkbox"/>
[blurred]	Virology	<input checked="" type="checkbox"/>
[blurred]	Microbiology	<input type="checkbox"/>
[blurred]		<input checked="" type="checkbox"/>
[blurred]	Microbiology	<input type="checkbox"/>
[blurred]	Administration	<input type="checkbox"/>
[blurred]	Virology	<input type="checkbox"/>

With Advanced Permissions ([Chapter 4-1](#))

Group	User Name	Allow User Access	Edit Book	Experiments			Pages			Sign Pages
				Add + Edit	Edit	View Only	Add + Edit	Edit	View Only	
Full Access	All members ←	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Full Access	[blurred]	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Full Access	[blurred]	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Full Access	[blurred]	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
Full Access	[blurred]	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Full Access	[blurred]	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
Full Access	[blurred]	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
Full Access	[blurred]	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>


More granular options are available with advanced permissions. To enable these options, tick the **“Allow User Access”** box, then choose your different options for edit and/or create a Book, an Experiment and Pages.

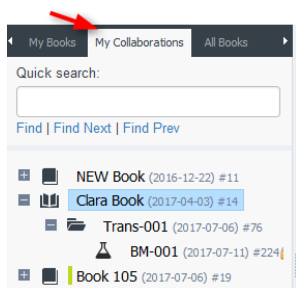
You have the possibility to add all members of a group at once by enabling the options for **“All members”**.

The blue arrows on the left and the right allow you to navigate from Full access group to the other groups in your LabCollector instance.

In the Pages section, the option **“Close Page”** gives the possibility to the collaborator to close pages in the book.

The **“Sign Pages”** option allows the collaborator (independently of their permission level) to access the menu **ADMIN > Page > Page Signing** to countersign the pages.

 If you have the sign page option in your ELN, the collaborators need to have an active digital certificate to sign and countersign pages. Refer to [Chapter 9-](#) for more details.



Your collaborators will see your book in the section **My Collaborations**.

For each book, you have a menu on the top right. You can Add New Experiment ([Chapter 6-2](#)), Print Book, Export in PDF or Zip format (PDF + attached files), and access the Book History.

If you choose to print or export, the book and all the experiments and pages associated with it will all be printed and exported. When exported in PDF or ZIP the PDF file has a table of content with the experiment and pages.

Add New Experiment
Book History
Print Book
Export PDF
Export Zip

Book:	#14	Clara Book	Edit
Project Code:			Edit
Tags:			Edit

The **Book History** displays all book description versions. It is useful to identify page modifications and therefore it promotes traceability of lab work.

Book Content History

Row	Book Content History	Created By :	Modified By :	Recover By :
4	HYDROTHERMAL EXPERIMENTS	Anne-Laure Sauvadet (2015-10-08 17:01:09)	Anne-Laure Sauvadet (2016-01-27 16:37:10)	()
3	HYDROTHERMAL EXPERIMENTS	Anne-Laure Sauvadet (2015-10-08 17:01:09)	Anne-Laure Sauvadet (2015-12-09 15:40:27)	()
2	HYDROTHERMAL EXPERIMENTS	Anne-Laure Sauvadet (2015-10-08 17:01:09)	Anne-Laure Sauvadet (2015-10-09 10:27:27)	()
1	HYDROTHERMAL EXPERIMENTS	Anne-Laure Sauvadet (2015-10-08 17:01:09)	Anne-Laure Sauvadet (2015-10-08 17:01:09)	Anne-Laure Sauvadet (2015-10-09 10:00:00)

By clicking on the book name, you can view this version and compare it to a previous version (addition will be shown in green, deletion in red). On the bottom of this page there are buttons to recover an old version. Use the active book name link to accept the recover action.

Compare version with version

Book:	EXAMPLE Book		
Description	<p>Project Milestones:</p> <ul style="list-style-type: none"> • Infection profile • Drug candidates • Validation 		
Created by:	Xavier (2017-02-17 12:10:26)	Modified by:	Xavier (2017-04-18 16:59:25)
User ID		Access Type	

If you choose to recover a version, your book history will appear as shown below:

Book Content History

Row	Book Content History	Created By :	Modified By :	Recover By :
11	PDL Project	Xavier (2017-07-06 14:59:44)	Xavier (2017-07-11 12:00:08)	()
10	PDL Project	Xavier (2017-07-06 14:59:44)	Xavier (2017-07-07 11:37:34)	()
9	PDL Project	Xavier (2017-07-06 14:59:44)	Xavier (2017-07-07 11:37:27)	Xavier (2017-07-12 14:16:48)
8	PDL Project	Xavier (2017-07-06 14:59:44)	Xavier (2017-07-07 11:37:17)	()



The same versioning option is available at the experiment and page levels.





Books are the only items that can be archived (**Archive** button on the bottom left). You can choose to archive them when they are not used or finished. This feature allows you to hide books in the tree view to ensure quicker navigation.

If you want to find an archived book, simply check the **Show archived projects** box in the tree view. You can unarchive a book by selecting it and use the **Unarchive** button.

The screenshot shows the 'ELECTRONIC LAB NOTEBOOK' interface. On the left is a tree view of books, with 'Book 105' selected. At the bottom of the tree view, the 'Show archived projects' checkbox is checked and highlighted with a red box. The main area displays details for 'Cell Culture Book', including fields for Book Code, Tags, and Content. Below these is a table for 'Users having access/collaborating' with columns for Name, Type, Phone Number, and E-mail. At the bottom of the details section, there are 'Created by' and 'Modified by' fields, and a green 'Unarchive' button with a red arrow pointing to it.

6-2. The Experiment folder

This section is used to organize your experiment on a higher level; the experiment will assemble several pages in which the daily procedures are annotated (see [Chapter 6-3](#)).

Add New Experiment	
 Experiment Name:	<input type="text"/>
 Choose WorkFlow:	Default / No workflow 
 Page Tags:	<input type="text" value="Tags"/>

First choose your Book on the tree view and click on **Add New Experiment** button in the main Book menu. You have two options:

- Create a **Default/ No workflow experiment**: you can add pages and page templates in the order that you want. The number of pages are unlimited in this experiment folder.
- Use a **workflow** (See [Chapter 7-2](#)): A workflow is defined by a pre-defined series of page templates and a pre-defined task list, the order of pages is set and completion of each step (page) is mandatory in the workflow. The number of pages will be limited following the configuration of the workflow. A workflow is useful when the lab executes routine experiments.

Once the Experiment is created, you can retrieve your information on the viewer. You can choose a name and add tags to help you with your search if you want (press enter to validate each tag). You can also decide to use a workflow in the list. To validate, use the button **Submit**.

The screenshot shows the LabCollector interface for an experiment. At the top, there's a search bar and navigation tabs: "Add New Page", "Experiment History", "Print Experiment", "Export PDF", and "Export Zip". The main content area is divided into several sections:

- Experiment Details:** Includes "Experiment type" (DEFAULT), "Tags", and "Content" (a paragraph about biological models).
- Task list:** A table with columns for "By Name", "By Name", "By Name", and "By Name". It lists tasks such as "Clustering cell lines for 2 weeks", "Send tasks to the bioinformatics team", and "Send tasks to the bioinformatics team".
- LabCollector Data:** A table with columns for "Name", "Status", and "Comment". It lists data points like "Pharmacogenetics of conventional chemotherapy in rare small cell lung cancer" and "Pharmacogenetics of conventional chemotherapy in rare small cell lung cancer".

Red arrows point to the "Task list" and "LabCollector Data" sections.

By default, the experiment page has two more sections:

- Task list (see [section 6-2-1](#))
- LabCollector Data (see [section 6-2-2](#))

For each experiment, you have a menu on the top right. You can [Add New Page \(Chapter 6-3\)](#), [Print Experiment](#), [Export in PDF or Zip format \(PDF + attached files\)](#), and [access the Experiment History](#) as for the [Book](#). If you choose to print or export, the experiment and all associated pages will be printed and exported. When exported in PDF or ZIP the PDF file has a table of contents with the pages.

[Add New Page](#) [Experiment History](#) [Print Experiment](#) [Export PDF](#) [Export Zip](#)


Experiments can be moved from one book to another using the related button [Move Experiment To](#) (left bottom of the experiment details). You can also simply use the drag & drop function in the tree (see [chapter 5](#)).






Since you cannot delete an experiment, we recommend creating a book named **TRASH** and move the experiments that you don't want to keep to this book.



6-2-1. Task list


The task list can be edited to follow experiment advancement. Each task is defined by a name, a date, duration and a ratio. If pages are already created, they can be linked to a task. A task can have a child-task (**A**), be checked (**B**, with timestamp), edited (**C**) and canceled (**D**, with timestamp).

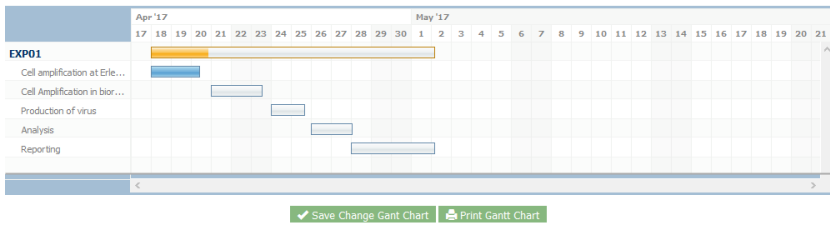
Task list:  + Add task list item

<ul style="list-style-type: none"> by John Doe López [2018-03-29 09:30:00] : Hood preparation Duration: 0.5 h Date Beginning: [2018-03-29 09:30:00] Percent Completed: 0% 	
<ul style="list-style-type: none"> by John Doe López [2018-03-29 09:45:00] : UV on pipettes Duration: 0.25 h Date Beginning: [2018-03-29 09:45:00] Percent Completed: 0% 	


Task list:  + Add task list item




- by Anne-Laure Sauvadet [2015-10-09] : Experiment workflow  CHECKED on 2017-10-02 by Anne-Laure Sauvadet
- by Anne-Laure Sauvadet [2015-10-09] : Samples-sorting  CANCELED on 2017-10-02 by Anne-Laure Sauvadet



A graphical view of tasks can be displayed using Gantt chart option . Tasks definition will allow you to edit task time and allocated resources reports for a project. For more information, see [chapter 8-](#).



6-2-2. LabCollector data link: quick overview

This section allows you to search or add a new record directly in your LabCollector data. You can also have access to this part when editing your text by clicking on the button , that will also allow the addition of a reference in your description text (for more detailed information see [section 6-4-4](#))

From Module: + New Keyword search:  Search  Clear  Memorized

Name	Module	Comment	
 Pharmacogenetics of conventional chemotherapy in non-small-cell lung cancer: a changing landscape?	Documents	 Protocol/strategy: Large scale study for choosing cell lines	Insert all Insert link

6-3. The Page

Click on **Add New Page** button on the Experiment main menu or **Add Next Page** button in the Page main menu (this button is only available if the previous page is not closed).

Add New Page	
Choose Page / Template Type	PCR Phusion Mitochondrial DNA
Page Name :	Exp01-Mt101
Page Icon :	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Page Tags:	Tags

Then, you should choose a page template (see [Chapter 7-1.](#)), a name and add tags to help you with your search if you want (Press enter to validate each tag). The page can also be associated with an icon for quick identification in the Tree View. Several icons are available. Those icons have no special meaning other than to allow for a visual distinction of pages. Just define the relevant meaning for each icon with your team. It could be a standard page, process, sequence analysis, calculations, etc.



If a template is applied, the page is formatted using the predefined template allowing users to save time: just follow template instructions (see [chapter 7-](#)).

Once the Page is created, you can retrieve your information on the viewer. You can edit the page's name, tags and use the field content to describe your experiment.

For each page, you have a menu on the top right. You can find an **Add New Page** (if the page is not closed), **Delete** (if it is the 1st version) or **Duplicate** buttons. You can also **Print** and **Export** in PDF or zip format the page, and access the **Page History**.

The screenshot displays the ELN interface with six numbered sections:

- 1** Flat spreadsheet (with an Edit button)
- 2** LabCollector Data (with a Link Data button)
- 3** Infographic (with an Edit button)
- 4** SpreadSheet Data (with an X button)
No SpreadSheet Data are link to this page.
You can:
 - import file
 - add a new one (without template)
 - add a new one with the template (with a dropdown menu showing 'Courbe poids' and an 'ok' button)
 - add a new template
- 5** Diagram Designer
- 6** Associated Files (with a Manage button)

By default (without a template), the ELN page has several sections:


- 1/4. Flat spreadsheet and SpreadSheet Data (see [Chapter 6-5](#))
2. LabCollector Data (see [section 6-4-4](#))
3. Infographic ([Chapter 6-6](#))
5. Diagram Designer (see [Chapter 6-7](#))
6. Associated Files (see [Chapter 6-8](#))

All page content modifications are allowed until the page is closed/signed. This option is very useful to be compliant with a QA management system. Refer to [Chapter 9](#) for more details.


Once a page is closed, a section erratum box will appear, allowing comments or rectifications on the page and a reference to another page with the rectifications. The previous sections of a closed page cannot be modified; the only editable part is the erratum box. The erratum box is included in the page versioning.

Page Status and Signatures: CLOSED by Xavier on 2016-03-15 15:38:38

Created by: Xavier (2016-03-15 14:27:15) Modified by: Xavier (2016-03-15 14:27:39)

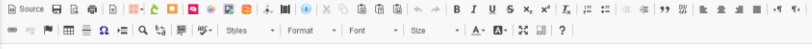


VALID content by AUTHOR signature
Xavier on 2016-03-15 15:38:38





VALID content by ADMIN signature
Laura on 2016-08-12 16:41:47









Erratum: Save Cancel

Source 

⚠ Page deletion is possible only if the section **Content has never been saved (version 1). A delete button will be displayed on the page menu.**

You can view the version number on the top left. This number changes after each content page modification.

 (version: 4) 
Add Next Page Page History Duplicate Print Page Export PDF Export Zip

 Page:	#69 Archeal PCR 1258		 Drop image here or click to upload.
 Template:	Archeal PCR [PCR with General primers]		
 Tags:			
 Content:			

By clicking on the version, you have the version list with the previous modification, with the name of the user, date and hour that this version was saved. You can thus compare it to previous versions and recover an old version of the page content.

Compare version 4 (Anne-Laure Sauvadet 2017-07-06 16:43) with version 1 (Anne-Laure Sauvadet 2016-10-11 13:09:28)

Page: Archeal PCR 1258

Description

Protocol thermocycler according to [Sauvadet REFERENCE et al. 2007](#)

Positive control > *Methanococcoides burtonii*

Temperature	Time	Cycle
94°C	5'	1
94°C	1'	30
51°C	1'30"	
72°C	2'	
72°C	6'	1
4°C	∞	

Plate

	1	2	3	4	5	6	7	8	9	10	11	12
A	BS18	BS11	BIO4	MO3	!	!	!	!	!	!	!	!
B	BS3	BS24	BIO10	MO4	!	!	!	!	!	!	!	!
C	BS2	BS16	BIO3	GM1	!	!	!	!	!	!	!	!
D	BS1	BS13	BIO5	GM2	!	!	!	!	!	!	!	!
E	BS12	BS14	BIO6	GM3	!	!	!	!	!	!	!	!



Please note that user can't edit a page if it is already opened by another user (page locked on editing). All buttons turn grey.




6-4. The Text Editor: Content

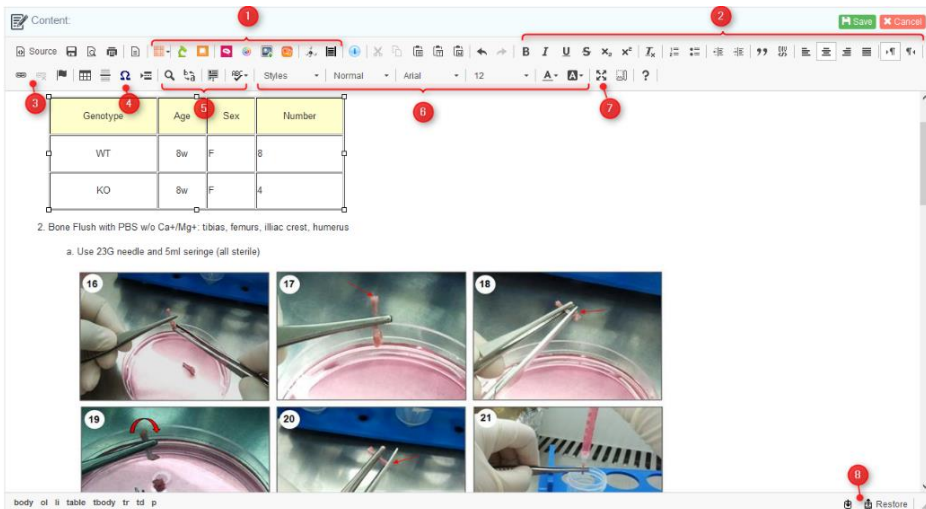
For content field of books, experiments, pages and erratum box, you have the ELN text editor. To use the text editor, click on the Edit button.

In the text editor, you can find:

1. LabCollector tools:

- Plate Insert:** you can find several predefined formats
- LabCollector data link:** add an existing or new LabCollector record to the experiment (e.g. sample, primer...)
- Page Cross-reference** between ELN pages
- Mind the graph Infographic ([Chapter 6-6](#))
- Photo Editor, Image Upload and PhotoBank:** to edit a photo directly in the ELN
- Photo Editor, Image Upload and PhotoBank** from computer

- g.  **Photo Editor, Image Upload and PhotoBank**: call an image from your PhotoBank gallery
- h.  **Chemistry Insert** (reactions and molecule drawing)
- i.  **Special FASTA insert**



The screenshot shows the ELN editor interface. At the top, there is a toolbar with various icons for text formatting, alignment, and insertion. Below the toolbar is a table with the following content:

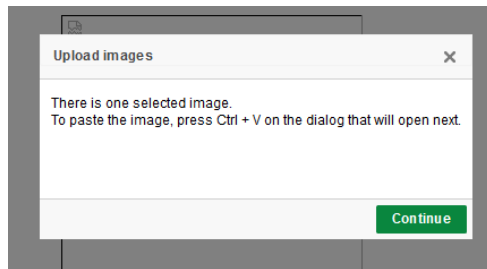
Genotype	Age	Sex	Number
WT	8w	F	8
KO	8w	F	4

Below the table, there is a procedure step: "2. Bone Flush with PBS w/o Ca+/Mg+; tibiae, femurs, iliac crest, humerus". A sub-step "a. Use 23G needle and 5ml syringe (all sterile)" is followed by six numbered images (16-21) showing the bone flush procedure. The images show a person using a needle and syringe to flush bones into a petri dish.

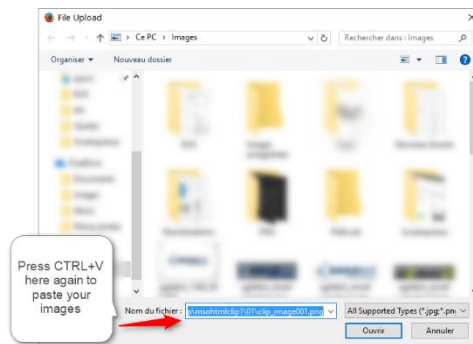
Numbered callouts (1-8) are placed on the screenshot to highlight specific features: 1 points to the top toolbar; 2 points to the bottom right corner; 3 points to the table border; 4 points to the table header; 5 points to the table content; 6 points to the text formatting options; 7 points to the window maximize button; 8 points to the bottom right corner.

2. Text formatting (bold, italic...)
3. Link and anchor
4. Special characters, tables
5. Search, replace and proofreading
6. Text formatting (styles, size, color...)
7. Maximize window
8. Automatic backups for emergency


If users need to import tables or text from other sources, they can use copy/paste (to paste in the ELN press Ctrl+V). If you have images in the text or table you are copying in the ELN, a window will open up, press Continue:



In the next window, press Ctrl+V again to copy and insert your images and then press Open:



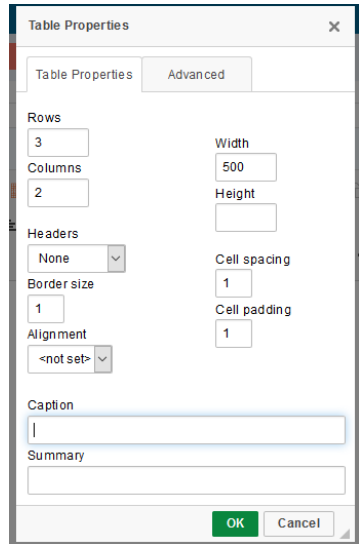
6-4-1. Table

To insert a new table using the text editor click on the table button . The Table Properties dialog window that will open, lets you set configuration options that define table size, its display properties, or other advanced properties.

Below is an overview of all the Table Properties tab elements:

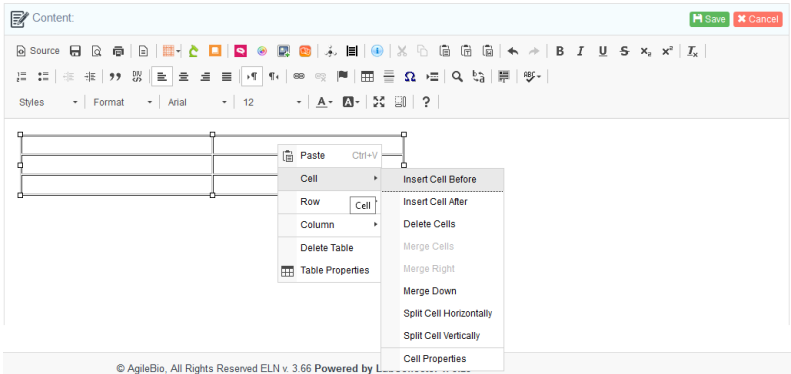
- **Rows** – the number of rows in the table (obligatory).
- **Columns** – the number of columns in the table (obligatory).
- **Width** – the width of the table in pixels or a percentage value. Giving the width as a percentage value lets you set the proportion of the editing area that the table will occupy.
- **Height** – the height of the table in pixels.

- **Headers** – the drop-down list that formats certain table cells as headers, which applies special formatting to them. You can apply header formatting to **First Row**, **First Column** or **Both**.
- **Border size** – the thickness of the table border in pixels.
- **Alignment** – the alignment of the table on the page. The following options are available: **Left**, **Center**, **Right**.
- **Cell spacing** – the space between individual cells as well as cells and table borders, in pixels.
- **Cell padding** – the space between the cell border and its contents, in pixels.
- **Caption** – the label of the table that is displayed on top of it.
- **Summary** – the summary of the table contents that is available for assistive devices like screen readers.



Note: 1 pixel (px) is approximately equal to 0.30 millimeter (mm).

By doing a right click on the table, other options will appear to edit your table.



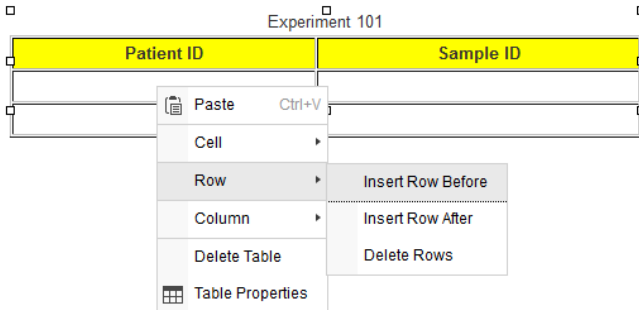
Under the “Cell” section you can select one or several cells of your table and apply different actions:

- Insert cell Before or After
- Delete Cell

- Merge cells
- Split cells vertically or horizontally
- Cell properties for more advanced options

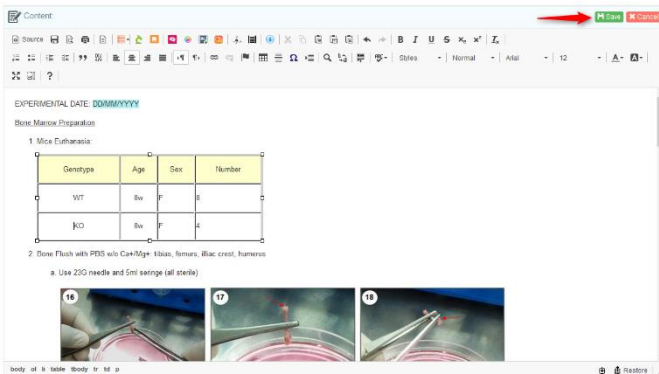
In Cell Properties, you can color the selected cells, as well as other properties:

By doing a right click on your table and choosing row or column you can insert a new row/column before or after the selected one or delete it. You can also delete a table or come back to the table properties.

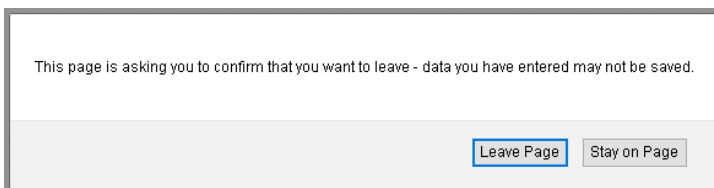


6-4-2. Save action and automatic backup

To save the changes, click on the **SAVE** button, that will make the changes final on the new version of your page.



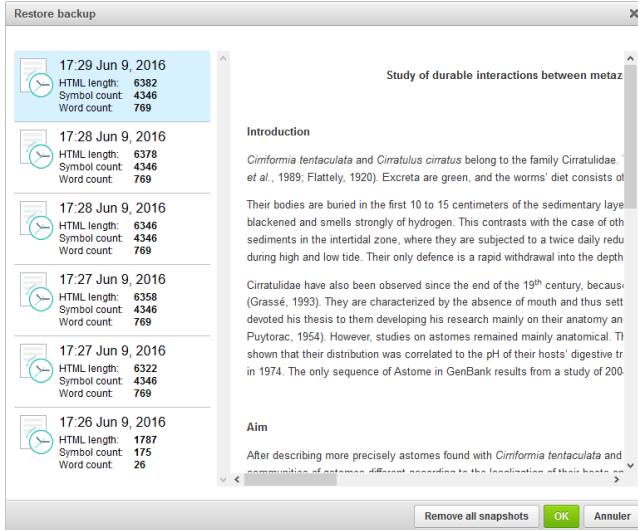
When you are drafting your work and change the page or book without saving your current work, the LabCollector ELN gives you a warning message, allowing you to come back and save your current work.



If something happens to your page, there is also an automatic backup (**every 30 seconds**) and a manual backup that are accessible **until you save or cancel** your new experiment or page. At the bottom of your text editor, you can find both buttons: to backup now and to restore backup. You can preview saved snapshots before restoring them and removing them.

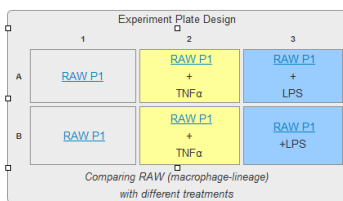
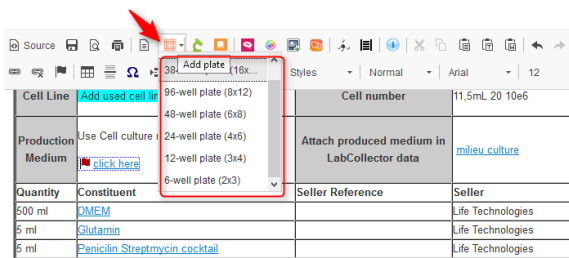


Then go back to your page, click on the icon restore and select the last version, for example, and you will be able to retrieve the page with the changes you made. Press the SAVE button.




6-4-3. Plate Insert


The plate insert button is a quick way to have your plate grid pre-designed. You have the choice of selecting plates of 6, 12, 24, 48, 96, 384 wells.

























Example of a plate design

6-4-4. LabCollector data link





This section allows you to search for or add a new record directly in your LabCollector data. You can also have access to this part when editing your text by clicking on the button , or in the table “LabCollector Data” that is found below the text editor.














LabCollector Data:  **Link Data**

Name	Module	Comment
  Ammonium Chloride Solution	Reagents & Supplies	
  Direct Lineage Cell Depletion Kit, mouse	Reagents & Supplies	
  Direct Lineage Cell Depletion Kit, mouse: Protocol	Documents	
  T00000204	Samples	
  T00000184	Samples	
  T000027925	Samples	
  THP-1	Strains & Cells	

By using the button  directly on your text editor you can also insert the link directly into the text as in the example above using the plate insert, all the records added will also be found in this table.

To insert a LabCollector link first select a module (1), then:

From Module: Select Module  New Keyword search:  Search  Clear  Memorized

Select Module	Module	Comment	Insert all
Equipment			
Reagents & Supplies	ion	Reagents & Supplies	 Insert link
Address Book	ion Kit, mouse	Reagents & Supplies	 Insert link
Documents	ion Kit, mouse: Protocol	Documents	 Insert link
Samples		Samples	 Insert link
Primers		Samples	 Insert link
Plasmids		Samples	 Insert link
Chemical Structures		Samples	 Insert link
Sequences		Samples	 Insert link
Strains & Cells		Samples	 Insert link
Antibodies		Samples	 Insert link
Microarrays		Samples	 Insert link
Patient Consultations		Samples	 Insert link
THP-1	Strains & Cells		 Insert link

- If it is an existing record, you can use the keyword search and press the search button and check from the select list the record you want to link to the experiment (A-B orange).

From Module: Samples + New Keyword search: Search Clear Memorized

Records Found: 564

1 Select from the list the records to link or use the select all button

2 Link

ID	Record Name	Description
<input type="checkbox"/> 5	T00000002-1	
<input type="checkbox"/> 27843	T27843	ST-154
<input type="checkbox"/> 145	T000000204	
<input type="checkbox"/> 146	T000000184	
<input type="checkbox"/> 27376	T000027925	
<input type="checkbox"/> 27377	T000027924	

- If it is a new record, after choosing the module click on new (A in blue), a window will open up for you to fill in the Record and Storage Data (shown below).

 Samples

Save

Number Of Record Repeats:

Keep Record in Memory As Model For Replication

Add New Record

Record Data

Storage Data

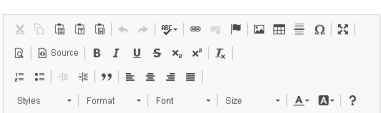
Project Code:

Optional Unique Code:

Name: Link

Sample Type: (Quick Add Sample Type)

Comments & Description



- You can also import the records from a memorized list:
- 1- on your LabCollector perform a search and memorize the records


22 results found | Show/Hide all results on page

ID	Record Name	Description	Source	Created	Modified	Author	Category	Tags
146	T000000184	DNA				Sarah	No	
27...	T27658	DNA				Sarah	No	
27...	T27659	DNA	T27658			Sarah		
27...	T27660	DNA	T000000002			Sarah		
27...	T27661	DNA	T000000002			Sarah		
27...	T27666	DNA	Cons-1			Sarah		2016-07-12
27...	DWI276561	DNA				Sarah		
27...	T276563	DNA				Sarah		
27...	DWI276562	DNA				Sarah		


Memorize ALL records from a search





Click here to memorize record by record (it adds to the list)










- 2- Then on your LabCollector Data button in the ELN select “Memorized” and confirm the selection by checking the records:

From Module: Select Module + New Keyword search: Q Search ✖ Clear 📌 Memorized 

Records Memorized: 23 🔗 Link

 Module	ID	Record Name	Description
<input checked="" type="checkbox"/> Samples	146	T000000184	
<input checked="" type="checkbox"/> Samples	27658	T27658	
<input checked="" type="checkbox"/> Samples	27659	T27659	
<input checked="" type="checkbox"/> Samples	27660	T27660	
<input checked="" type="checkbox"/> Samples	27661	T27661	
<input checked="" type="checkbox"/> Samples	27666	T27666	
<input checked="" type="checkbox"/> Samples	27672	DNT276561	
<input checked="" type="checkbox"/> Samples	27673	T276563	
<input checked="" type="checkbox"/> Samples	27674	DNT276562	

On the linked records in the LabCollector Data, you can add a comment (which will be visualized only from the ELN), “insert link” in your text (only available when you use button  on your text editor), access the data in reading mode  or open them quickly in another tab using the icon . You can delete the association by using the icon .

Name	Module	Comment
  PL_SPS1_I1	Streams & Cells	 we sams corps
  PL_SPS1_I2	Streams & Cells	
Date created:	2015-04-16 19:21:50 (last update: 2015-12-09 09:28:50)	
Organism:	California tortricata	Related Organism Duchonella
Genotype:		
Features:		
Owner:	Aree-Laure Sauvadet (Aglebio) - sauvadet@aglebio.com	
Relative document:	Duch division cellulaire	
Doc relative:	Open records	
relative cell:	Open records	
cell relative:	Open records	
Strain and cells type:	NONE	
City:	Hydrath	
Locations:	 Bioscience Pool	
Site name:	 B1	
Individual name:	 B	
Dissection date:	2009-09-09	
Sex:	M	

You can retrieve these LabCollector Data links, from your LabCollector inventory modules, under a LabCollector record you will find the ELN icon, under this section you can find all experiments and/or pages containing experiments in which this record (samples, equipment, cell lines, etc.) has been used.


ID	Label	Sample Type	Origin	Main Opera...	Cooperation	Reference	Currently ...	Sampling d...
5...	T000000002-1	RNA		Sarah	Yes	EXP1-Culture p...	Yes	2015-07-01

ELN experiments & pages:

Project	Book	Experiment	Page	Author	Date Updated	Status
RISK-IR	MELODI Project	1- Low dose Irradiation RAW - Nr2 kinetics - IF	Erratum 0000	Xavier	0000-00-00 00:00:00	CLOSED
RISK-IR	MELODI Project	DNA Damage HSCs IR- H2Ax	exp102	Xavier	0000-00-00 00:00:00	CLOSED
	Trash 2015	PCR	PCR experiment	Xavier	0000-00-00 00:00:00	OPEN
	TRASH Book 2016	test	test	Xavier	0000-00-00 00:00:00	APPROVED
	TRASH Book 2016	EXP05	Radiosensitivity assay	Xavier	0000-00-00 00:00:00	OPEN
	Cell Culture Book	My experiment 1	EXP123-Metabolite Follow up	Xavier	0000-00-00 00:00:00	OPEN
	EXAMPLE Book	Parasitology experiment	Parasitemia test	Xavier	0000-00-00 00:00:00	OPEN
	EXAMPLE Book	Parasitology experiment	Page1	Xavier	0000-00-00 00:00:00	OPEN
	EXAMPLE Book	Monoclonal ANTibodies Production	EXP001- ELISA	Xavier	0000-00-00 00:00:00	OPEN
CANC-105	PDL Project	High throughput put analysis for candidates cell lines	Gene study	Xavier	0000-00-00 00:00:00	CLOSED
CANC-105	PDL Project	High throughput put analysis for candidates cell lines	Reporting Final	Xavier	0000-00-00 00:00:00	OPEN


By clicking on the link, you can directly open the experiment or page. Note that to view the page you must have the right to see this book, if the book is archived, be sure to check "Show archived projects" under the **Tree View** (see [Chapter 5](#)).

6-4-5. Page Cross-reference




While annotating, you can refer to another page or experiment in your text by clicking on the button . A window will open, so you can choose the book, experiment and page to refer to.


My Books
Collaborations
All Books

- EXAMPLE Book (2017-02-17) #12 [-]
- Mouse behavior experiment (2016-07-22) #48 [+]
- Parasitology experiment (2016-08-09) #52 [-]
- Parasitemia test (2016-08-12) #143
- Page1 (2017-02-01) #193
- PCR-005 (2017-04-11) #211
- template (2017-05-12) #218
- Gene study (2017-05-23) #219
- CC-102 (2017-07-13) #226
- Monoclonal ANTibodies Production (2016-09-19) #53 [+]
- HSC transplantation (2017-02-17) #68 [+]
- pcr (2017-06-01) #74 [+]
- pcr (2017-06-01) #75 [+]
- PDL Project (2017-07-06) #16 [+]
- STEMNERGIC Project 1 (2017-07-06) #18 [+]

Click on the 'plus' button to expand the book and experiment, click on the page link to insert it into the text, the page inserted will appear like this .

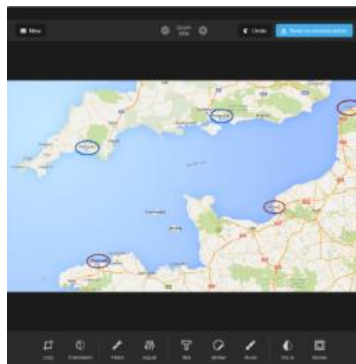
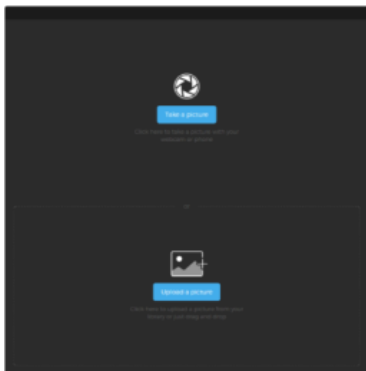
6-4-6. Photo Editor, Image Upload and PhotoBank

If you want to insert pictures, our advice is to use one of the applets: Photo Editor , add an image  or the link to PhotoBank .

- Using the photo editor or , the image should follow the upload limits of the ELN (see [Chapter 4-2](#)) and should be in a standard format, i.e. .jpeg, .png or .bmap.
- [PhotoBank](#) Add-on allows you to import photos and videos in different formats (Tiff, MP4, etc.) and to insert an image in the ELN with a direct link to the raw photo.


If you want to modify an image before inserting it, you can use the photo editor applet. Thus, you can add legends, text box, arrows, etc. With this applet you can also directly take a picture and insert it in your ELN page.

The stickers (other forms/images that can be inserted on your picture) can be managed through **ADMIN > Template > Manage image stickers**. You can deselect or select default stickers or add your own images.



On the ELN page, you also have an image box on the top right, where you can insert an image (only one per page) by drag and drop or use the [ELNDocSend](#), a simple mobile application to scan paper notes and send to your ELN.

6-4-7. Chemistry Insert

With the ELN Chemistry plugin , users can design chemical reactions which can be integrated into book pages, reporting, and reused and changed if needed (see [chapter 7-1-3](#)). Users can design chemical reactions by importing structures from LabCollector **Chemical Structures** module. New structures may also be drawn.

First, search for your molecule in the database then add it to the reaction. You can also recall the memorized chemical structures (see [LabCollector Data-memorize items](#)).

Then, add arrows or other symbols as needed.

Continue and finish your reaction by repeating the previous steps. Once a reaction is complete, it can be inserted into an experiment or page:

	Add row	Add column	Remove selected	Clear selection	Insert in Page	Save as Template
Mass used						
Mol used						
equiv						
Solubility						

Here is an example of an ELN page with chemical reactions inserted into the content:

Content: Edit

synthesis p-Fluoroaniline and hexafluoroacetone

Procedure

triphenylphosphine crystals (393.2 mg (1.0 equiv) was added to a stirring solution of dimethylplatinumcyclooctadiene (100.0 mg, 1.5 mmol) in degassed (N₂) Diethyl ether (20 mL) in a Schlenk flask under a nitrogen atmosphere at room temperature (22 C). The solution was initially clear, but became pale yellow ca. 5 minutes. After 1 hr of stirring the volatiles were removed in vacuo. The yellow solid was washed with Pentane 3x 0.5 mL. The solid was dried in vacuo giving the product in near quantitative yield 97%.

Analysis

You can also draw your chemical reactions using the Diagram Designer (see [Chapter 6-7](#)).

6-5. Flat spreadsheet and spreadsheet Data

Three types of spreadsheet are available:

- A web spreadsheet or flat spreadsheet based on HTML5
- A Zoho Spreadsheet
- A JAVA spreadsheet

! Note that JAVA spreadsheets need to be opened in a web-browser that supports java plugins. Only the current version of Internet Explorer available as of the date of publication is compatible with this, we thus recommend using Zoho Spreadsheet.

6-5-1. Flat spreadsheet

This spreadsheet is a simple tool for quick calculations and basic record keeping. On the page, to start using the flat spreadsheet, click on the **Edit** button on the right.

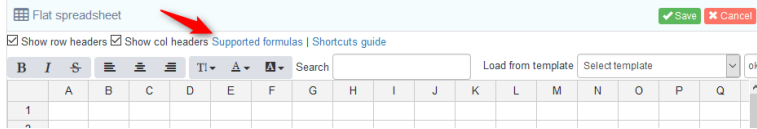
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Component	Final Concentration	25 µl reaction (µl)	Mix to Prepare												
2	10X ThermoPol or Standard Taq Reaction Buffer	1X	2.5	56.25												
3	10 mM dNTPs	200 µM	0.5	11.25												
4	10 µM Forward Primer	0.2 µM (0.05-1 µM)	0.5	11.25												
5	10 µM Reverse Primer	0.2 µM (0.05-1 µM)	0.5	11.25												
6	Template DNA	<1,000 ng	1	22.5												
7	Taq DNA Polymerase*	1.25 units/50 µl PCR	0.125	2.8125												
8	Nuclease-free water		19.875	447.1875												
9	N of samples to be analyzed x 1.5	22.5														
10																

You have access to a spreadsheet with all the functions of a text editor and a basic spreadsheet; you can also choose to use a predefined template (see section 7-1-5). You also have the possibility to use mathematical formulas.

- !** *Formulas must be written in English format.*
- !** *Formulas work with dot in decimal numbers.*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	Code	Ville	Location	Site	Individual	Diagnosis date	Photos	Tam. mm	Dc	Dc	di. cell in. day	di. cell in. section	5.5ml. tube	Phage PCR	Legal	Gluta	DAPI	COI wtOH	Note							
2	PL_SPS1_L1	Plymouth	Stonehouse Prd	S1	11	2009-09-09	1364-6613011-05	25			101			"3 at "13	"9 at "8	1.3	1 at 1	1 lane	2							
3	PL_SPS1_L2	Plymouth	Stonehouse Prd	S1	12	2009-09-09	1367-6813008	30	200	92									2							
4	PL_SPS1_L3	Plymouth	Stonehouse Prd	S1	13	2009-09-09	1369-6913009	40			301	1							2							
5	PL_SPS1			S1	14	2009-09-10	1373-7413113	42			305								2							
6	PL_SPS1			S1	14	2009-09-10	1373-7413113	42			305								2							
7	PL_SPS1			S1	15	2009-09-09	1360-6113499	40	8	10					"3 at "13	"5 at "14			2							
8	PL_SPS1			S2	11	2009-09-10	1375-7613115	20			10				"6	"14			2							
9	PL_SPS1			S2	12	2009-09-10	1377-7813117	40			200				"6	"14	1.8	1	1 lane	2						
10	PL_SPS1			S2	13	2009-09-10	1378-7913118	21	50	18					"6	"8			2							
11	PL_SPS1			S2	14	2009-09-10	1380-82	20			0				"6				2							
12	PL_SPS1			S2	16	2009-09-09	1382-8413099	20	8	0					"6				2							
13	PL_MBS1			S1	11	2009-09-10	1370-7013110	12	185	162			22	"4	"8		1		2							
14	PL_MBS1			S1	12	2009-09-10	1383-8413258	26	70	309			3	"3	"12	L7			2							
15	PL_MBS1_L1	Plymouth	Mount Batten	S1	13	2009-09-11	1385-8613038	20	43	2	164		2 D6	"2 at "13	"12	L8	G1		2							
16	PL_MBS1_L4	Plymouth	Mount Batten	S1	14	2009-09-11	1387-88	62	0	0									2							

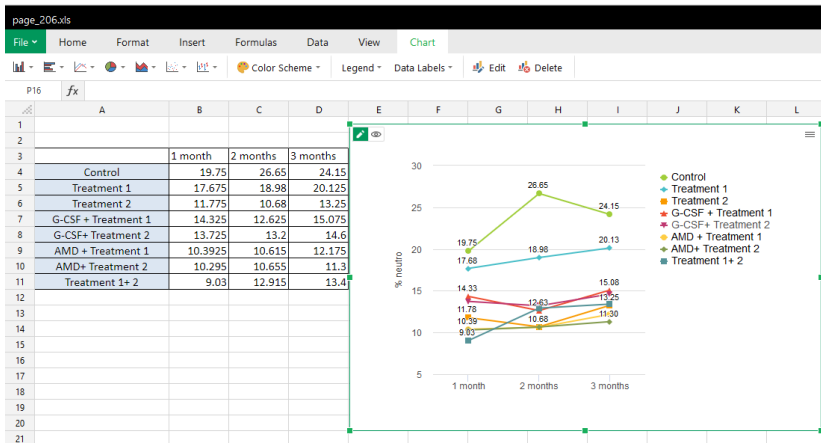
The list of supported formulas can be found on this link of your Flat Spreadsheet.



There is also a list of supported shortcuts you can refer to. The majority of shortcuts are standard for most document and spreadsheet applications.

6-5-2. Zoho spreadsheet

Zoho spreadsheet is an Excel-friendly interface that uses Zoho Sheet to display the content.



To use Zoho Spreadsheet you have to comply with Zoho [terms of service](#) and [privacy](#). Zoho Spreadsheet has a free mode that allows the use of this tool with 300 user documents per month (one user account is linked to your LabCollector ELN). To know more about Zoho pricing check [here](#).

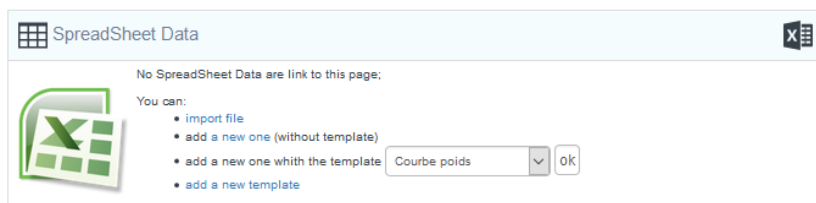
⚠ If you are using LabCollector ELN from a domain accessible to the internet (cloud hosted or other) Zoho Docs is just used to display the information but no data is saved on Zoho platform, all your spreadsheet data is saved locally on your LabCollector ELN server.

⚠ If you are using LabCollector ELN from a local server not accessible to the internet (with at least outbound access), you should first save in Zoho Docs and then save on

the LabCollector database, once you save on the database the document is erased from Zoho Docs. A few seconds between both actions is necessary.

To enable Zoho Spreadsheet see [chapter 4-3](#).

On your page you will see the section Spreadsheet Data:



From this panel, you can:

- Import a file: supported files are: .xls - Microsoft Excel Spreadsheet , .xlsx - Microsoft Excel Spreadsheet 2010,.ods - OpenOffice Open Document Spreadsheet, .csv - Comma Separated Values, .tsv - Tab Separated Value
- Add a new one: Use a blank spreadsheet editor to create your own tables.
- Add a new one with a template: Load a spreadsheet template.
- Add a new template: Create a spreadsheet template to be used in routine.

Spreadsheet Templates can be edited and modified from the Admin Menu (see [section 7-1-4](#)).

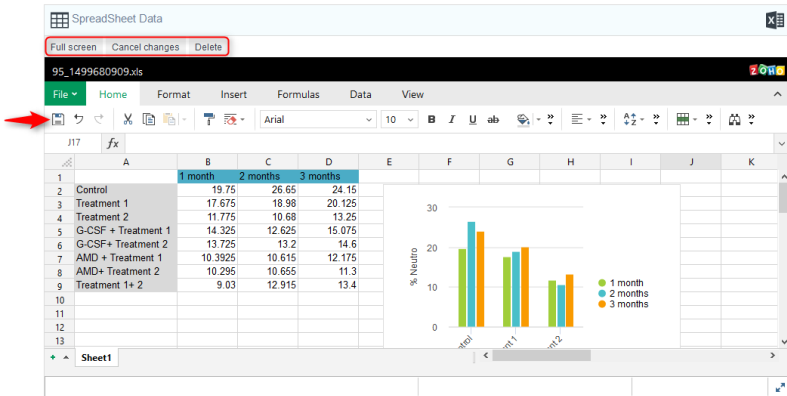
When the spreadsheet is opened, you can edit, modify tables and graphics to store your results. You can also open your spreadsheet in full screen.

Users must save tables into the database, otherwise information will be lost:


- If you are using Zoho in an instance accessible by internet (configuration with APIkey only) save in LabCollector ELN database just by clicking on the disk button

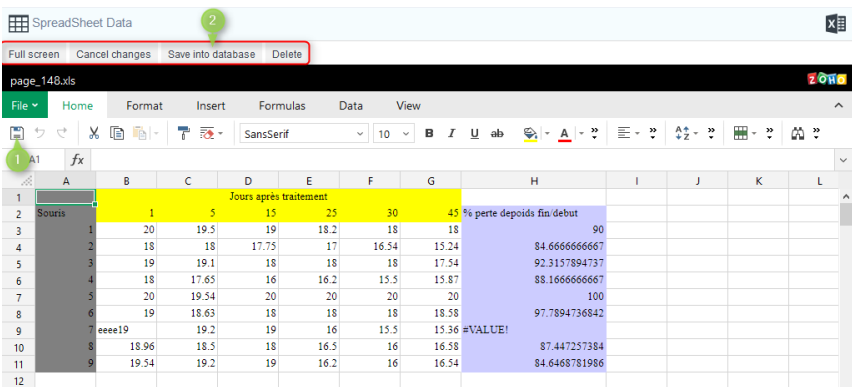


Using this method, no data is saved in Zoho Docs

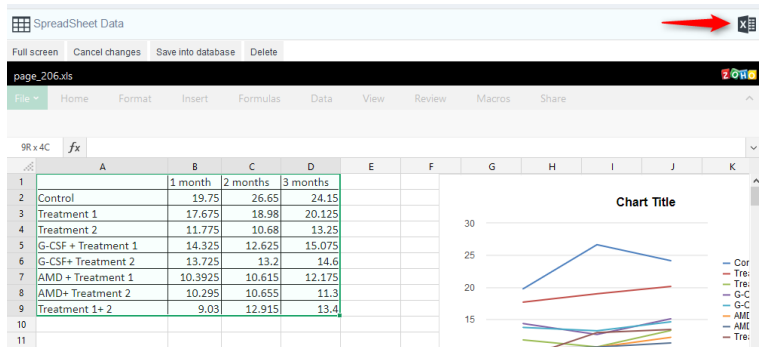


- If you are using Zoho in a local instance (APIkey with a token) to save in LabCollector database, you need to first save on Zoho Docs by clicking on the disk button and then click on the button “**Save into database**”. When data is saved the files will be erased from Zoho Docs.

 Note that there may be a delay in saving to the database, so wait until the first step is completed.



You can download your spreadsheet even if a page is closed by clicking on the Excel icon in the top right corner:



6-5-3. Java spreadsheet

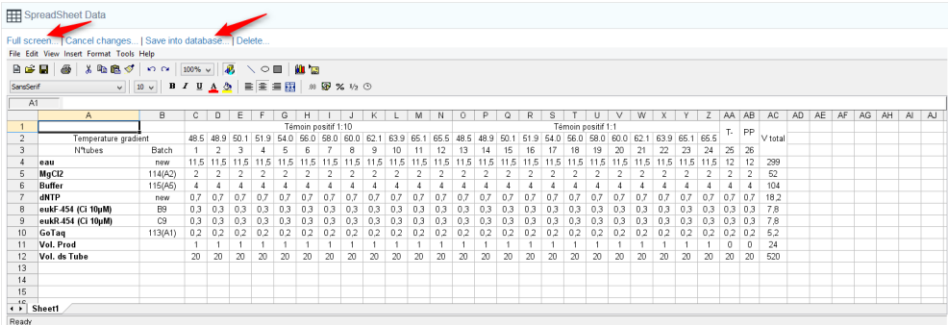
Java spreadsheet is enabled by default; please see the specifications to use it under [Flat spreadsheet and spreadsheet Data](#).

From this panel, you can:

- Import a file: supported files are: .xls - Microsoft Excel Spreadsheet and .csv - Comma Separated Values.
- Add a new one: Use a blank spreadsheet editor to create your own tables.
- Add a new one with a template: Load a spreadsheet template.
- Add a new template: Create a spreadsheet template to be used routinely.

Spreadsheet Templates can be edited and modified from the Admin Menu (see [section 7-1-4](#)). When the spreadsheet is opened, you can edit, modify tables and graphics to store your results. You can also open your spreadsheet in full screen.

Users must save tables into the database, otherwise information will be lost.



 **Formulas are allowed but they must be written in English format.**

 **Formulas work with dots instead of commas for decimal numbers.**

Now, you can download your spreadsheet as an excel file by clicking on the Excel icon at right.

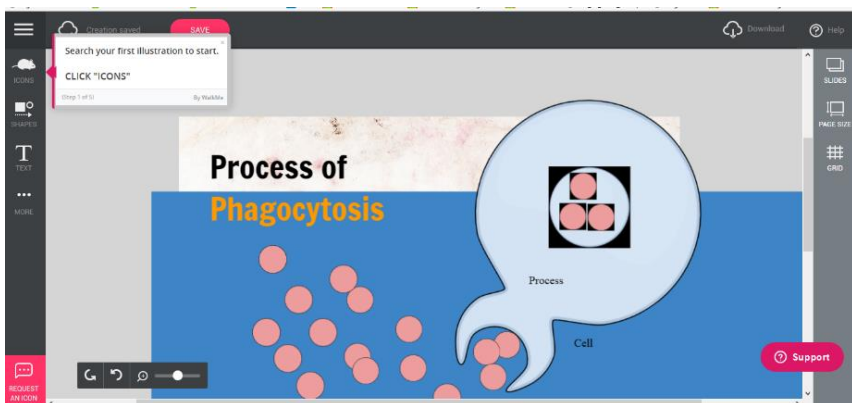
Spreadsheet data are also integrated in the printable, PDF and zip versions.

6-6. Infographics

The infographics section is provided by one of our partners Mind the Graph, this is a platform for beautiful infographics with high level scientific illustration done by scientist-designers. You can have your infographic imported directly into the ELN, for more information check here:




<https://mindthegraph.com/>.

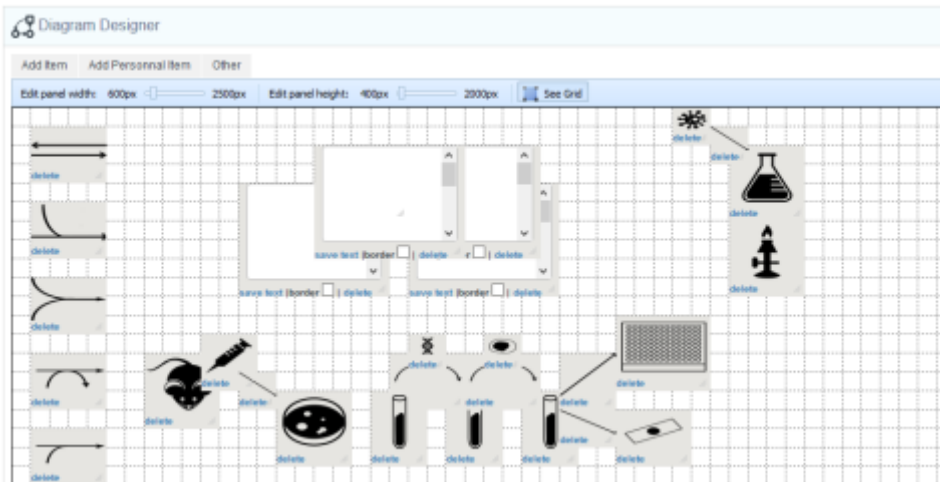


You can subscribe to this platform directly in Mind the Graph website or by opening the infographics section in the ELN or by clicking on the infographics button in the text editor.

6-7. Diagram Designer

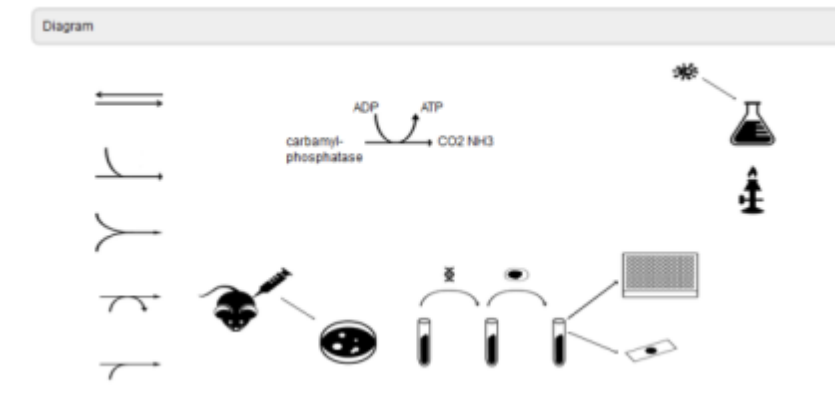
LabCollector ELN integrates a **Diagram Designer**. Click on this icon  and **Create** (on the right) to start a diagram. Multiple elements can be added like text, arrows, and numerous laboratory items, by using **Add item** menu and choosing between the elements.

Panel dimensions can be modified using the Panel Editor. You can define panel width and height quickly using your mouse. You can also add a panel grid in the background facilitating elements alignments. Click on the **See Grid** icon to display the grid.



Each element added appears in a grey box allowing users to manage box dimension easily. Note the box border and color aren't displayed when you print a preview (paper version or pdf file report).

To print a paper version or see a diagram review, use the tab **Other**.

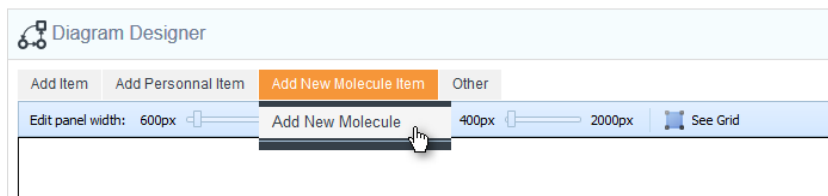


Images can also be added using the **Add Personal Item** tab. Select the image of your choice, give it a name and choose the size. Items can be imported in three resolutions:

- Small quality (40px * 40px)
- Medium quality (160px * 160px)
- Big quality (360px * 360px)

You can also define rules to manage image usage.

The last tab **Add New Molecule Item** allows the design of chemical structures and reactions. You can choose to import structures from LabCollector **Chemical Structures** module or design new structures directly from the Diagram Designer.



To import a structure from the LabCollector database (only **Chemical Structures** module), you must link the page to structures of interest using **LabCollector Data** (see [section 6-4-4](#) **Erreur ! Source du renvoi introuvable.**). When chemical structures are linked to the ELN page, the tab displays the list of available structures. Select one structure to add it directly to the panel.

LabCollector Data: Link Data










	Name	Module	Comment
 	Vitamin C	Chemical Structures	
 	Aspirin	Chemical Structures	
 	Riboflavin	Chemical Structures	

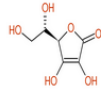
Diagram Designer

Add Item Add Personal Item **Add New Molecule Item** Other

Edit panel width: 600px Add New Molecule width: 400px height: 200px See Grid

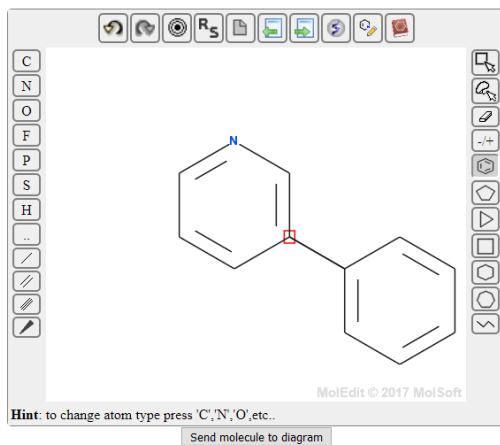
Vitamin C

Vitamin C
Aspirin
Riboflavin



edit | delete

Users can also design their own chemical structures directly through the diagram designer using the **Add New Molecule** function (using the open-source editor Molsoft).



MolEdit © 2017 MolSoft

Hint: to change atom type press 'C', 'N', 'O', etc..

Send molecule to diagram

A new window containing a molecule editor appears. You can now design any molecule needed for your experiment. This tool includes a molecule database with the most used ones (Templates). A periodic table is also integrated. When the molecule is designed, define a name and click on **Submit** button to display it in the panel. Molecules in the panel can be modified using **Edit** function in the molecule box (grey).

6-8. Associated files

In the section **Associated Files**, any files can be easily attached to the page by drag and drop. Its status version can also be defined to follow the work progress: definitive, intermediate or discarded version with corresponding icons.

After adding a file, don't forget to **SAVE** the action on the right. All those files will be in the ZIP export folder.

You can remove files by checking the case REMOVE then SAVE. If you set up **OFF** in File uploads admin section (see [section 4-2](#)), the REMOVE option will not be available.

Associated Files: Save Cancel

Drop files here or click to upload.

Plymouth.pdf version: REMOVE

Plymouth_tidal_sept.pdf version: REMOVE


6-9. Erratum Box

Once the page is signed/closed, no more modifications can be done on the page content (text, spreadsheets, images...). However, at the bottom of the page an erratum box is available for closed pages; you can use this section if you need to report a mistake or any other comment. You can also refer to another page with complementary information using the ELN cross-reference tool (see [Page Cross-reference](#)).

 Erratum:

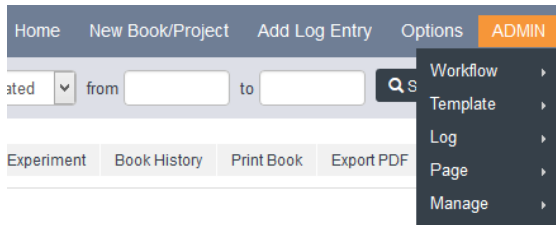
 Edit

Analysis erratum please refer to the page [Reporting-001](#)
The new analysis show that Treatment A is more efficient by 30% than B

 All comments done in the erratum box are also recorded in the page's versioning history.

7- TEMPLATE AND WORKFLOW MANAGEMENT

To make AgileBio ELN friendly to use, template and workflow functions have been integrated into the application. These options allow users to save time and use standard procedures to increase productivity and the quality of their work.



⚠ Don't forget! If you activate Advanced Permissions, you can allow ELN users to create and edit workflows (C/EW) and templates (C/ET).

7-1. Templates

7-1-1. Create custom fields

To customize ELN pages and ELN pages templates, users can create custom fields. Go to **Admin > Template > Manage custom fields**

Add New Custom field into Pool of fields


Field Name	Type
<input type="text"/>	<input checked="" type="radio"/> Free text <input type="radio"/> field Checkbox <input type="radio"/> Select list <input type="radio"/> Date Field <input type="radio"/> Link Field <input type="radio"/> Grid Field
Mandatory: <input type="radio"/> Yes <input checked="" type="radio"/> No	Help text: <input type="text"/>
Options for Text Field type:	Length: <input type="text" value="50"/> <input type="button" value="+ Add Custom Field"/>


Note: If you want defined parameters/fields to be added to the template, you need to select an available custom field from the list above or generate a custom field first and select it.

To add a field, choose a name and define the field type: text, checkbox, select list, date, link or a grid.

The maximum length of a text field is flexible depending on the required information.





It is possible to define a custom field as mandatory. This function ensures that the required information will be completed before closing the page. To help your colleagues to understand the data requirements, use the help text section.

A field can be edited using the icon .

For select list, checkbox and grid types, edit the values with the icon .

Edit predefined values for: Select list (type is select)


values list:

value 1	
value 2	
value 3	
	

NOTE: Do not use ", " as it is used as a separator

[Update Values](#)

The grid field type allows the creation of a two-column table that you can fill with values of your choice.

Passage Number 

Days in Culture	Passage Number	Cell count (10e6)	%Cell Viability
0	1	20	85
2	2	40	95
3	3	150	95

7-1-2. Page template

In this page, you can find your template library. Here, you have the list of all templates that you can view and use, as well as a search bar.

To create a new template, click on the **Add Template** button.

On the existing templates, you can view (A), edit (B), duplicate (C) and archive (D) them.

TEMPLATE AND WORKFLOW MANAGEMENT

A template is already in the list by default. It is a blank template with the page options enabled; you can change this by editing this template.

On the same page, you have the versioning data for each template.

Templates can be organized by categories. Create your categories, first, using the **Categories** black button.

The template is identified by a **name (1)**, a **category (2)** and a **description (3)** if needed. You can use the **text editor (4)** to prefill your page (4).

The screenshot shows the template editing interface. It has four red circles highlighting key elements: 1. Template Name: Bacterial PCR; 2. Category: Protocol; 3. Template Description: PCR with General primers; 4. Prefilled Page Content: A rich text editor containing a protocol table and text.

Protocol thermocycler according to **INSERT REFERENCE**

Temperatura	Time	Cycle
95°C	2'	1
94°C	30"	30
52°C	30"	
72°C	90"	
+ 17'cycle		
72°C	5'	1
4°C	=	

Positive control = *Runetta stitthytrims*

PCR on extract and concentrated DNA from **ADD DATE** **ADD EXPERIMENT PAGE** with bacterial primers 27F/J1452R on **ADD EQUIPMENT**

INSERT GEL IMAGE

Conclusion

Restore

Then, select in the template **options (5)** section what you want to use in this template: SpreadSheet Data (Java or Zoho), Diagram Designer, LabCollector Data, Associated Files and Flat spreadsheet. For the spreadsheets, you can also select a template already linked to this page template (see [section 7-1-4](#)).

Custom fields (6) created in the previous step (see [section 7-1-1](#)) can be selected here. Select the custom field in the select list and then press **Add**.

TEMPLATE AND WORKFLOW MANAGEMENT

In the last section, you can configure **access** to this template (7). By default, templates are shared with all ELN users, if you want to apply another rule, **untick this option and choose another**, i.e. sharing with only your group and/or another or just some users.

Then, don't forget to **Submit** (8) to validate your template. You can edit a template as needed.

Options

Spreadsheet Data Gradient PCR 5

Diagram Designer

LabCollector Data

Associated Files

Flat spreadsheet Select template 5

Infographic

Available Custom fields for ELN Template Design

+ Add 6

Field Name	Type	Help text	Mandatory	Actions
Select list	select		NO	
Checkbox	checkbox		YES	

Access

▲ By default the template is shared with all ELN users

Share with all ELN users 7

Share with some groups

Share with some users

8 ✓ Submit ← Back

These templates will be accessible when you create a new page in your book or when they are part of a workflow.

Add New Page

Choose Page / Template Type

Page Name :

Page Icon :

Page Tags :

Matrice Labo

PCR Phusion Mitochondrial DNA

RNA Extraction, Qiagen

qPCR RT

PCR Reaction - Standard

Bone marrow isolation -Lin neg

IF Protocol


Yeast Growing Conditions

HSCs Clonogenic Assay


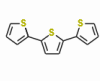
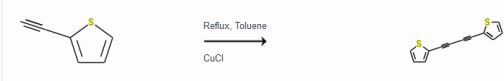

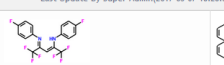
7-1-3. Reaction template

Users can design chemical reactions by importing structures from the LabCollector **Chemical Structures** module.

Chemical reactions can be integrated into book pages, reporting, and reused and changed if needed.

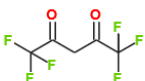
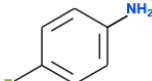
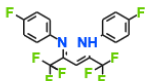
You can design chemical reactions by clicking on the chemistry plugin available in the text editor  (see [Chemistry Insert](#)).



Search Reaction Template





Description	
Created By Super Admin(2017-03-07 18:50:15)	Last Update By Super Admin(2017-03-07 18:50:15)
	
Created By Super Admin(2017-03-07 18:49:09)	Last Update By Super Admin(2017-03-07 18:49:09)
	
Created By Super Admin(2017-03-07 18:28:54)	Last Update By Super Admin(2017-03-07 18:28:54)
	

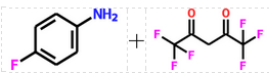
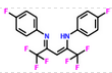
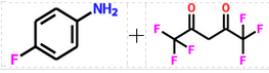
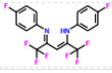
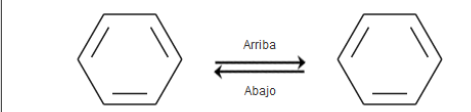
Continue and finish your reaction by repeating the previous steps. Once a reaction is designed, it can be inserted in a book page and saved as template.

TEMPLATE AND WORKFLOW MANAGEMENT

Add row	Add column	Remove selected	Clear selection	Insert in Page	<input type="checkbox"/> Save as Template
		+	2 	c-hexane, Nitrogen TiCl4 OC then reflux	
Mass used					
Mol used					
equiv					
Solubility					

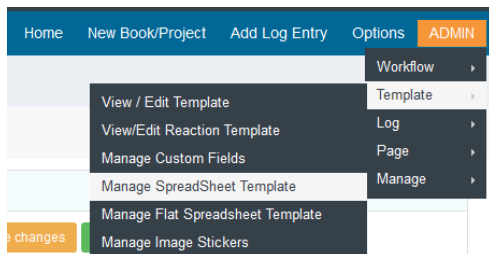
To manage reaction templates, go to **Admin > Template > View/Edit Reaction Template**. Here, you can edit your reaction with  and delete a reaction with .

 Molecules
  Arrows
  Templates
  Memorized records

	→		Select
	→		Select
			Select
MW	32		45

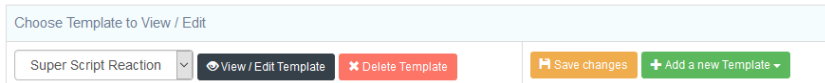
Add row	Add column	Remove selected	Clear selection	Insert in Page	<input type="checkbox"/> Save as Template

7-1-4. Data Spreadsheet template



From **Admin > Template > Manage Spreadsheet Template**, you can manage JAVA/Zoho (following the [configuration](#) of your ELN) spreadsheet templates. You can add new templates from this panel or you can view/edit templates saved in the ELN application. Templates can also be deleted.

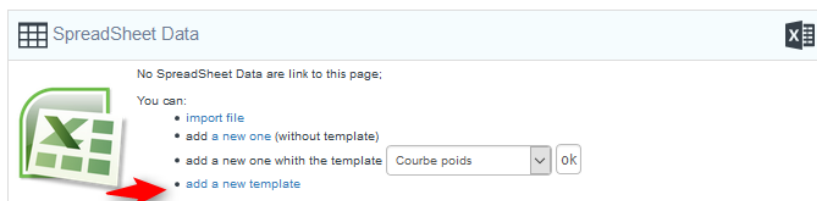
To create a new template, click on **Add a new template**. A new window with a spreadsheet appears.



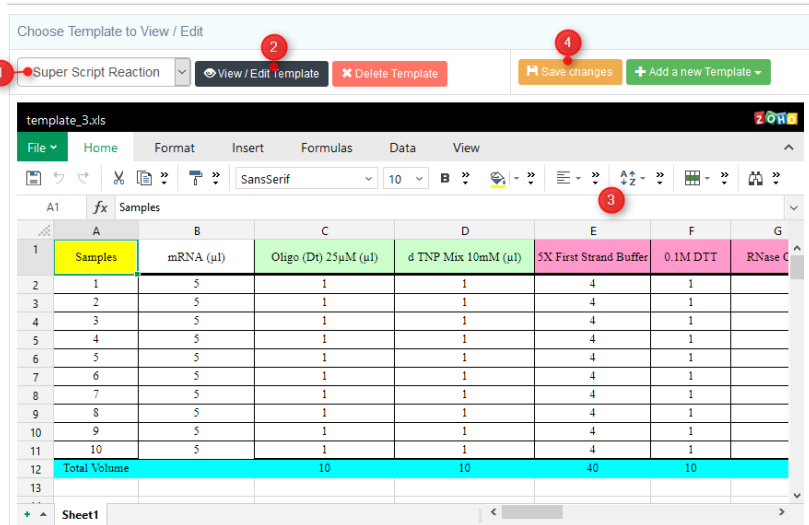
⚠ You need to activate the JAVA plugin in your browser for the Java Spreadsheet.

Give a name to your template, and create the table that you need. Do **SAVE**.

You can also create a data spreadsheet template directly from your page by selecting the option “Add a new template”

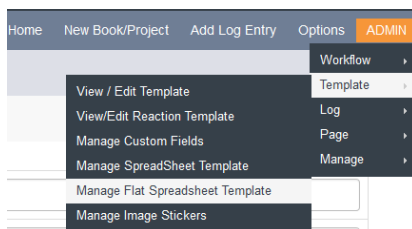


To edit a template, choose it from the select list (1) and click on **View/Edit template (2)**. Change what you need (3) then **SAVE (4)**.



7-1-5. Flat Spreadsheet Template

From **Admin > Template > Manage Flat Spreadsheet Template**, you can manage the Flat spreadsheet templates.



To create a new template, click on **Add a new template (1)**. A new window with a spreadsheet appears **(3)**.

To edit a template, choose it from the select list and click on **View/Edit template (3)**. Change what you need **(3)** then **SAVE (4)**.

To delete the template, click on **Delete Template (5)**.

Choose Template to View / Edit

PCR mix 2 5 1 4

View / Edit Template Delete Template + Add a new Template PCR mix Save changes

Show row headers Show col headers Supported formulas | Shortcuts guide

B **I** **S** **T1** Search

	A	B	C	D	E	F	G	H	I	J	K
1	Component	Final Concentration	25 µl reaction (µl)	Mix to Prepare							
2	10X ThermoPol or Standard Taq Reaction Buffer	1X	2.5	56.25							
3	10 mM dNTPs	200 µM	0.5	11.25							
4	10 uM Forward Primer	0.2 µM (0.05–1 µM)	0.5	11.25							
5	10 uM Reverse Primer	0.2 µM (0.05–1 µM)	0.5	11.25							
6	Template DNA	<1,000 ng	1	22.5							
7	Taq DNA Polymerase*	1.25 units/50 µl PCR	0.125	2.8125							
8	Nuclease-free water		19.875	447.1875							
9	N° of samples to be analyzed *1.5	22.5									

3

7-2. Workflows

A workflow is a sequence of connected steps that can be used in a work organization or a process. Workflows are useful for routine experiments, helping to standardize the writing of experiment reports to increase the quality of lab activities.

A workflow is related to the **Experiment** level.

From the **ADMIN** menu, users (depending on permissions, see [chapter 4-1](#)) can add/edit a workflow by combining several pages (blank pages and/or templates) that will be applied in an experiment.

! *Before editing a workflow, you need to define page templates if needed ([chapter 7-1](#)).*

To create a workflow, click on **Add Workflow** on the top right.

+ Add Workflow

Search By Name By User Estelle Mogense from to Search

PCR environmental DNA new	Steps/Pages : 4	Admin Validation : yes	View Edit
TaskList	Steps/Pages : 4	Admin Validation : no	View Edit
new task list	Steps/Pages : 1	Admin Validation : no	View Edit
WF Marine	Steps/Pages : 2	Admin Validation : no	View Edit
ElleR WF	Steps/Pages : 2	Admin Validation : no	View Edit

1. Give it a name
2. Instructions for user or description, if you want.
3. Here you can list tasks corresponding to the process. Name the task, add a comment if needed, then click on **Add item**.
4. Choose the number of pages/steps describing your workflow and validate it.

TEMPLATE AND WORKFLOW MANAGEMENT

If you want to associate a template to a page, choose from the dropdown. Default Template gives a “blank” page. For each page, you can request admin validation. If you check YES, the user **can't create the next page** until an administrator validates the page.

5. Workflows can request general admin validation. If you check YES, the user can't close a page. Only another administrator can validate the page (see [section 9-2-2](#)).
6. Validate your workflow.

WorkFlow Design Name :	<input type="text"/>				
Instructions :	<input type="text"/>				
Predefined Task List	<table><tr><td>Task:</td><td><input type="text"/></td></tr><tr><td>Comment:</td><td><input type="text"/></td></tr></table> <p><input type="button" value="+ Add Item"/></p>	Task:	<input type="text"/>	Comment:	<input type="text"/>
Task:	<input type="text"/>				
Comment:	<input type="text"/>				
Page Templates in Workflow:	No. of Steps / Pages: <input type="text" value="0"/> <input type="button" value="✓ Validate"/>				
Admin Validation Required :	<input checked="" type="radio"/> YES <input type="radio"/> NO				

In this example, an admin has to validate pages 1 and 2 to allow user to create pages 2 and 3. Page 4 can be created without validation. User cannot close any page until the admin validates it.

<input type="button" value="6"/>	<input type="button" value="✓ Submit"/>	<input type="button" value="← Back"/>
No. of Steps / Pages:	<input type="text" value="4"/>	<input type="button" value="✓ Validate"/>
Page 1:	<input type="text" value="[Protocol] Bacterial PCR"/>	<input type="button" value="YES"/>
Page 2:	<input type="text" value="[Protocol] Archaeal PCR"/>	<input type="button" value="YES"/>
Page 3:	<input type="text" value="Eukarya PCR"/>	<input type="button" value="NO"/>
Page 4:	<input type="text" value="Default template"/>	<input type="button" value="NO"/>



We recommend adding a couple of blank pages at the end of a workflow to allow for unexpected events even if the number of pages in the workflow is unlimited. Users will then be able to add corrections if signed pages contain errors or need additional information.

TEMPLATE AND WORKFLOW MANAGEMENT

To start an experiment, select the appropriate workflow in the list.

Add New Experiment

Experiment Name:	<input type="text"/>
Choose WorkFlow:	<div><p>PCR environmental DNA new</p><p>Default / No workflow</p><p>PCR environmental DNA new</p><p>TaskList</p><p>new task list</p><p>EllieR WF</p></div>
Page Tags:	

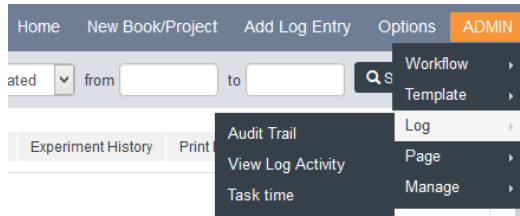
Your experiment details page will have a new section about workflow information.

Experiment:	Biofilm sample LeafA1-58	<input type="button" value="Edit"/>	
Experiment type:	In Workflow		
Workflow Information			
Uses Workflow	Workflow Instructions	Number of Steps(Pages) in Workflow	Admin Validation Required
PCR on environmental DNA	Perform 3 different PCRs on extracted and purified DNA from environmental sample	3	yes
Page	Status	Template used	
Bacterial PCR N*1584	VALIDATE	Bacterial PCR	
Archaeal PCR N*1585	VALIDATE	Archaeal PCR	
eukaryal PCR N*1586	EDITED	Eukarya PCR	

The creation of the pages in your experiment will be automatic, following the workflow.

8- AUDIT, LOG ACTIVITY AND TASK TIME

The audit function allows team leaders to follow user activity on the ELN.



The **Audit Trail** displays all modifications done by the selected user, in a specific date range. Numerous actions are identified like page creation, modifications, signing, link removal, export, print, etc.

Audit Trail

User : Select Date range : from 2015-12-22 to 2015-12-22 Search

User	Date range	Action	Book Name	Experiment Name	Page Name
Anne-Laure Sauvadet	2015-12-22	CREATE NEW Experiment/Project	(4) WORM EXPERIMENTS	Sampling cruise	
Anne-Laure Sauvadet	2015-12-22	New task item added	(4) WORM EXPERIMENTS	Sampling cruise	
Anne-Laure Sauvadet	2015-12-22	CREATE NEW Page	(4) WORM EXPERIMENTS	Sampling cruise	Bord de la Manche côté français
Anne-Laure Sauvadet	2015-12-22	Admin EDITED Template (Default template 1)			
Anne-Laure Sauvadet	2015-12-22	DELETE Page			
Anne-Laure Sauvadet	2015-12-22	CREATE NEW Page	(4) WORM EXPERIMENTS	Sampling cruise	Bord de la Manche
Anne-Laure Sauvadet	2015-12-22	User Created diagram panel	(4) WORM EXPERIMENTS	(14) Sampling cruise	(30) Bord de la Manche

The **View Log Activity** records the same information as Audit trail but only on the last 50 entries and without filtering.

The **Task Time** function allows you to visualize the time required to perform project tasks. This report can be edited for a user, a period, and completed tasks. Export file is available with the excel icon on the right.

This feature is very useful for collecting task times and each user's time per project.

AUDIT, LOG ACTIVITY AND TASK TIME

Time Per Task

User: Date range: from to Only show complete experiments

Q Search



Book Name	Experiment Name	User	Task name	Date start	Date stop	Time	Completion	Executed time	Status
test book creation	exp1	Anne-Laure Sauvadet	task 1	2015-12-22		78.00h	10.00 %	7.80 h	OPEN
Total time:						78.00 h	10.00 %	7.80 h	
WORM EXPERIMENTS	Sampling cruise	Anne-Laure Sauvadet	Samples collection	2015-12-22		8.00h	20.00 %	1.60 h	OPEN
Total time:						8.00 h	20.00 %	1.60 h	
Total time:						86.00 h	15.00 %	9.40 h	

9- ELECTRONIC SIGNATURES

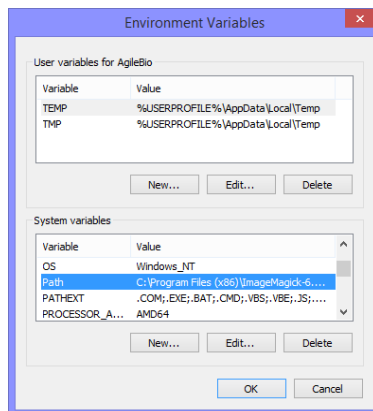
Validation with electronic signature certifies the ELN contents and all links between the ELN and LabCollector Database. Before using digital certificates, LabCollector needs to be set up.

9-1. Manage Electronic Signatures

First activate OpenSSL and Curl on your PHP preferences:

- Windows: open **LabCollector Manager**, in **Settings > Configure Servers > PHP**, edit PHP.INI and uncomment (delete ;) the following extensions: extension=php_openssl.dll and extension=php_curl.dll.
- Mac: contact us for more information
- Linux: install PHP-OpenSSL and PHP-Curl rpms.

For Win32/64 users, in order for these extensions to work, two DLL files (libeay32.dll and ssleay32.dll) must be available to the Windows system PATH (System32 or SysWOW64). For information on how to do this, see [How do I add my PHP directory to the PATH on Windows.](#)



Although copying DLL files from the PHP folder into the Windows system directory also works (because the system directory is by default in the system's PATH), this is not recommended. PHP folder is located in the main LabCollector folder, for example: C:\Program Files (x86)\AgileBio\LabCollector\php.

PHP will search for the *openssl.cnf* using the following logic:

- The OPENSSL_CONF environmental variable, if set, will be used as the path (including filename) of the configuration file.
- The SSLEAY_CONF environmental variable, if set, will be used as the path (including filename) of the configuration file.
- The file *openssl.cnf* will be assumed to be found in the default certificate area, as configured at the time that the openssl DLL was compiled. This usually means that the default filename is *c:\usr\local\ssl\openssl.cnf*.

Create the folder *C:\usr\local\ssl* (folder *usr* then *local* then *ssl*) and copy *openssl.cnf* provided in *\LabCollector\php\extras*.

9-2. Use electronic Signatures

9-2-1. Manage Certificates

Go to **ADMIN > Manage > Digital Certificates**.

 Create new user certificate and keys (OpenSSL and Curl need to be active)

#	User	Date	Private Key	Public Key	CSR	Expires in	Signature IMG	Action
1	Anne-Laure Sauvadet	2015-10-14 10:45:07				126 days		
2	Nicolas V	2015-10-14 11:05:25				126 days		
3	Marine S	2015-10-14 11:54:36				126 days		
4	Ellie R	2016-01-27 14:02:59				231 days		


From this page, the administrator can create and manage all digital certificates. Click on **Create new user certificate and keys** on the top left.



All fields are required to create the certificate.

A certificate is unique and related to only one user. Once submitted, the user profile is displayed on the screen. Three keys are created:

- Private Key
- Public Key
- CSR (Certification Signing Request)

A signature image can easily be attached to the certificate. Just download it using  icon.

A certificate is valid for one year. It can be renewed by a simple click on the **RENEW** button.

Authentication can be configured at this stage via **ADMIN > Manage > Digital Certificates Options:**

- No authentication (no password, no certificate needed)
- Login Authentication: authentication with your LabCollector login
- Certificate authentication
 - By password: authentication with the password generated when you create your digital certificates
 - Or by private key: authentication with the private key file saved in **.pem** and the certificate password



Certificates and keys options for signatures

Choose the Authentication Mode

- No Authentication
- Login Authentication
- Certificate Authentication

Certificate Authentication Mode

- Private Key Password

9-2-2. Page validation and signing

Workflows are edited with two options: page validation/signing or not, as previously described ([Chapter 7-2](#)).











To validate and sign workflow pages, go to **Admin > Page > Page Validation & Signing**.

ELECTRONIC SIGNATURES







A list of all pages that need to be approved/closed is displayed. The administrator can approve pages only if it's required by the workflow. Approval and closing of all listed pages at once is also possible.

The approval is indicated by a name and a date in the bottom of the page. When a page is validated, **no more changes are possible**.

Pages (in Workflow) requiring Admin Validation (and Signing)

Show only pages from user	Select	Book	Select	 OK	 Reset	(You cannot sign your own pages)
User	Date	Book Name	Experiment Name	Page Name	Admin Status	Action
John Doe López	2018-02-26 16:00:24	Andrea	26/02/2018	1	PENDING	 Approve and Close
John Doe López	2018-02-26 16:01:42	Andrea	26/02/2018	2	PENDING	 Approve and Close
John Doe López	2018-02-26 16:02:08	Andrea	26/02/2018	3	PENDING	 Approve and Close
John Doe López	2018-02-26 16:02:31	Andrea	26/02/2018	4	PENDING	 Approve and Close
John Doe López	2018-03-28 13:12:32	M2	test WF	page 2	PENDING	 Approve and Close
John Doe López	2018-03-28 13:14:12	M2	wf2	page 1	PENDING	 Approve and Close
John Doe López	2018-03-28 13:14:24	M2	wf2	page 2	PENDING	 Approve and Close
						 Approve and close all listed pages at once

Once the administrator Approves/closes the page, the user/owner can sign the page too. The certification process of the document is complete.

 Admin Validation Required:	yes		
 Page Status and Signatures:	 APPROVED by Anne-Laure Sauvadet on 2016-08-04 11:52:44		
Created by:	Ellie R (2016-08-04 11:41:01)	Modified by:	Ellie R (2016-08-04 11:42:07)
NOT SIGNED by owner	  VALID content by ADMIN signature Anne-Laure Sauvadet on 2016-08-04 11:52:44		
			

Both administrators/PIs and users can sign as witnesses. To see which pages need to be countersigned go to **Admin > Page > Page Signing**.

ELECTRONIC SIGNATURES

Closed Pages awaiting Admin Signing

Show only pages from user Book (You cannot sign your own pages)

User	Date	Book Name	Experiment Name	Page Name	Action
Anne-Laure Sauvadet	2015-10-09 13:06:58	HYDROTHERMAL EXPERIMENTS	Development	Gradient PCR eukF-454/eukR-454	<input type="button" value="Sign Page"/>
Anne-Laure Sauvadet	2015-11-03 14:26:32	HYDROTHERMAL EXPERIMENTS	Biofilm sample LeafA1-58	Bacterial PCR N°1584	<input type="button" value="Sign Page"/>
					<input type="button" value="Sign all listed pages at once"/>

10- UPGRADING AND UPDATING

To update or upgrade the **ELN Add-on** module, just download it from our website (www.labcollector.com). Then, unzip the folder and paste files in the following folder:

Ex. on Windows setup:

```
Programs\AgileBio\LabCollector\www\lab\extra_modules\eln
```

As a general suggestion, we always recommend making a backup prior to performing an upgrade or update.

If your instance of LabCollector is cloud hosted with AgileBio, contact a sales or support representative to update.



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