

EPFL

LIMS & ELN for Laboratory work user guide



SUMMARY

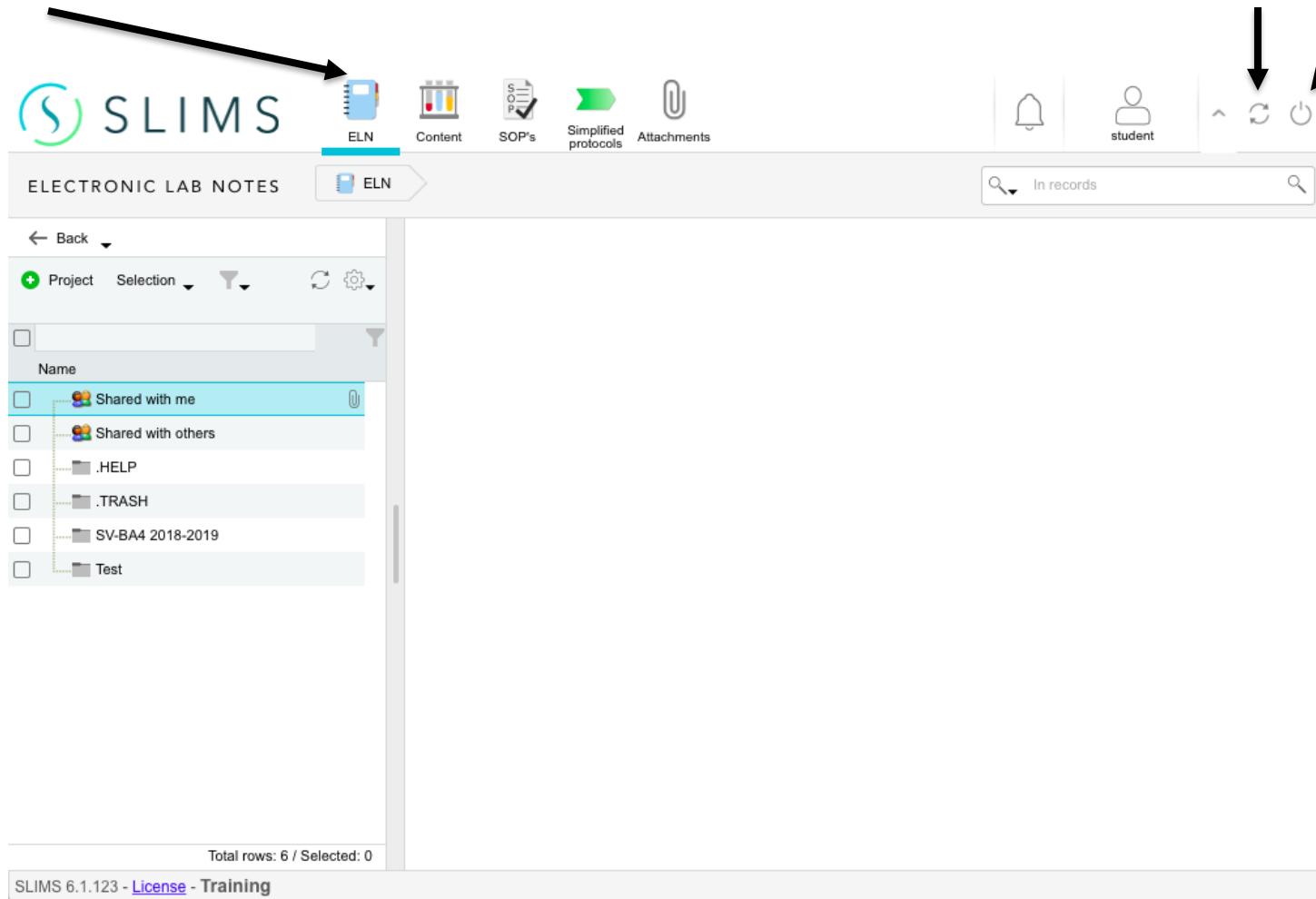
- ✓ Start your ELN P.3
- ✓ Notes in experiments P.10
- ✓ Samples P.15
- ✓ SOP's P.20
- ✓ Trash an experiment P.26
- ✓ Complete your work P.28

Log in to the ELN/LIMS system

- ✓ Open a web browser (Chrome is recommended)
- ✓ Go to slims.epfl.ch/training
- ✓ Log in with your EPFL credentials

Find the different modules

✓ Navigate through the different modules in quick access here

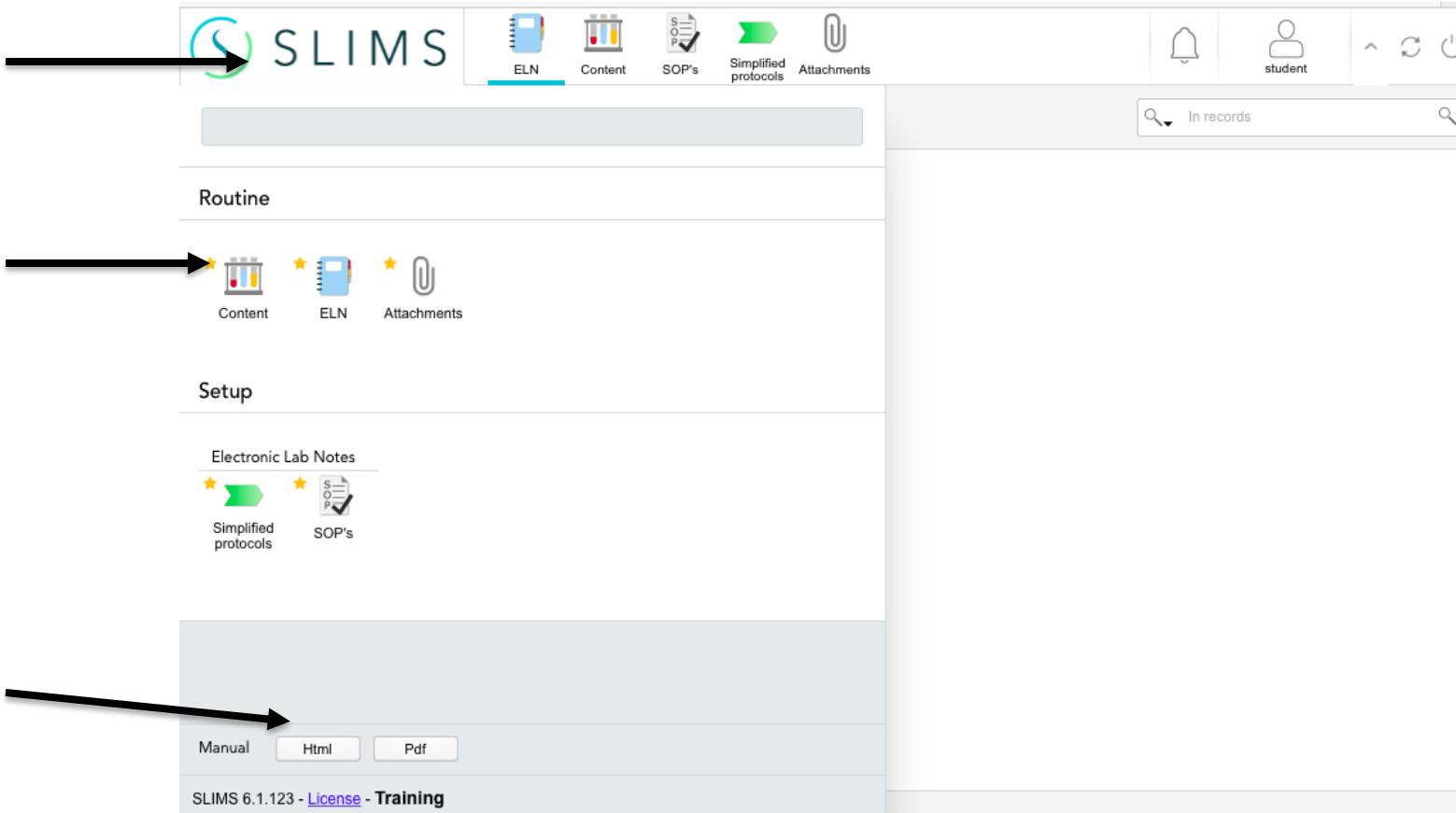


The screenshot shows the SLIMS software interface. At the top, there is a navigation bar with icons for ELN, Content, SOP's, Simplified protocols, and Attachments. The 'ELN' icon is highlighted with a blue bar. To the right of the navigation bar are icons for a bell, user profile (student), and system controls (refresh and power). Below the navigation bar, the text 'ELECTRONIC LAB NOTES' is displayed, followed by a 'Project Selection' dropdown and a search bar with the placeholder 'In records'. The main content area on the left is a sidebar for project selection, showing a list of projects: 'Shared with me' (selected and highlighted in blue), 'Shared with others', '.HELP', '.TRASH', 'SV-BA4 2018-2019', and 'Test'. At the bottom of the sidebar, it says 'Total rows: 6 / Selected: 0'. The footer of the interface includes the text 'SLIMS 6.1.123 - License - Training'.

✓ Refresh and quit

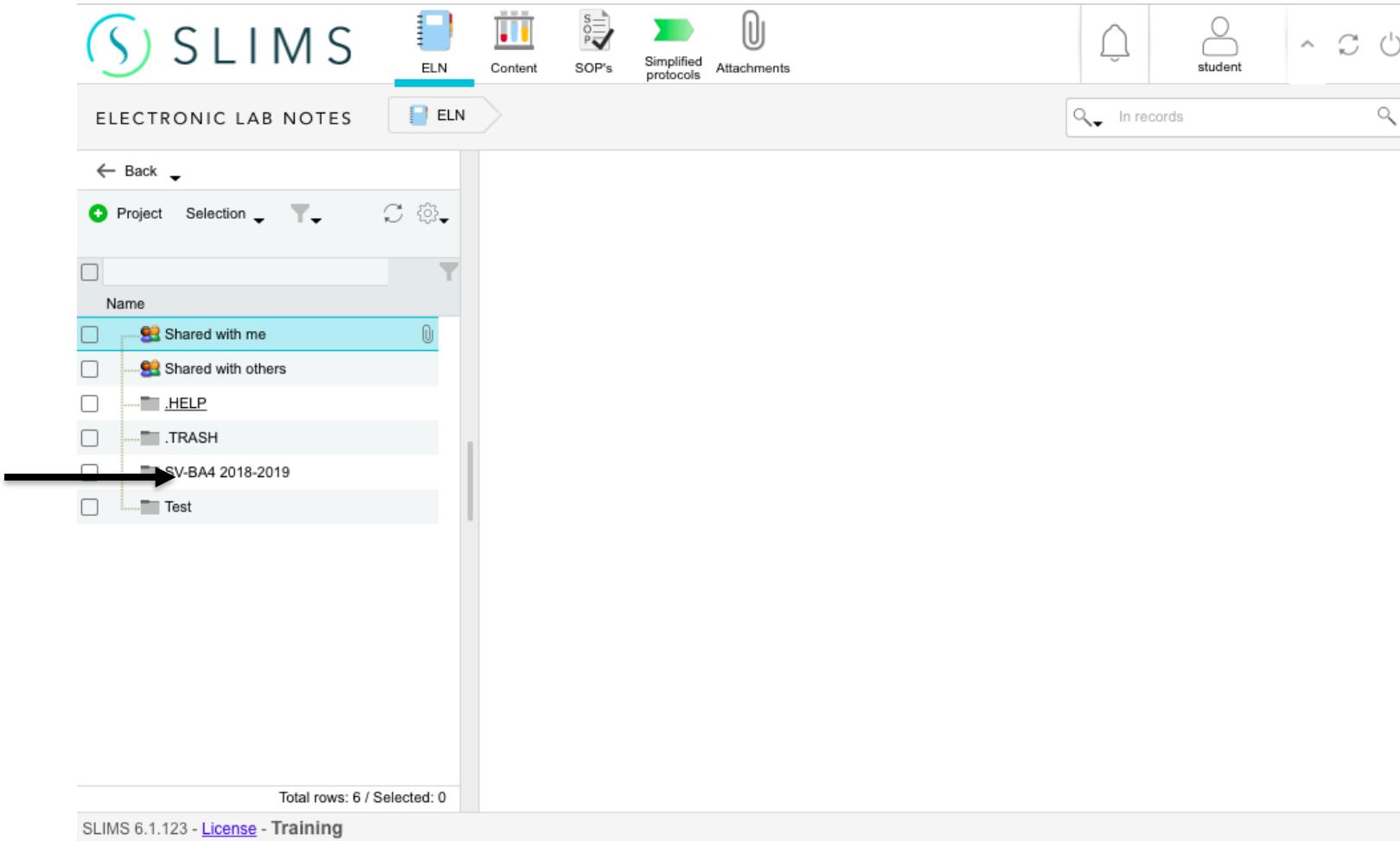
Find the different modules

- ✓ Find back the module here
- ✓ Click on the yellow star to add/remove them to/from the shortcut bar
- ✓ Find the complete slims user guide here



Start a new Laboratory Work

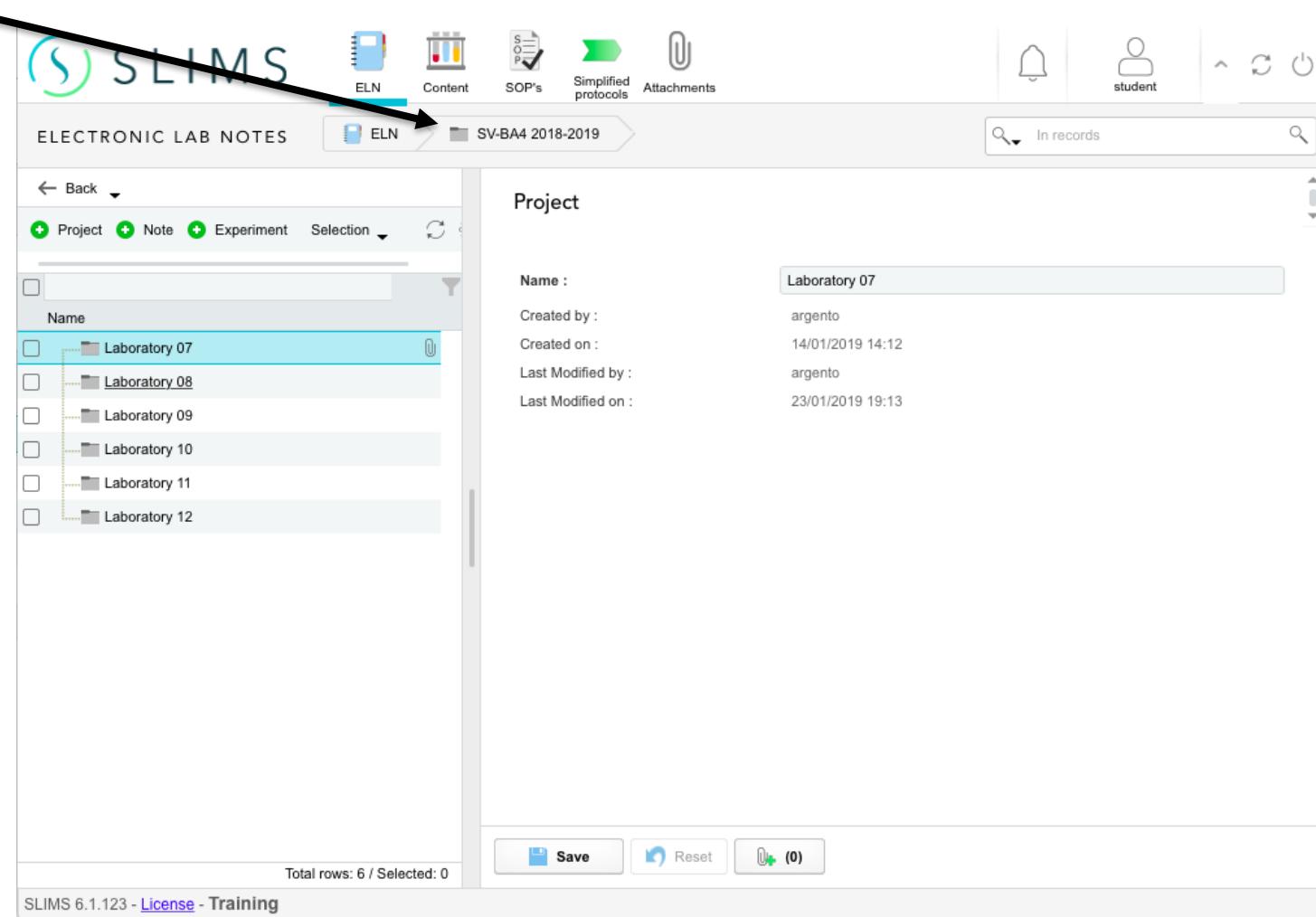
- ✓ Go in the ELN module
- ✓ Enter the folder of your section (by clicking on the folder name)



The screenshot shows the SLIMS ELN interface. At the top, there is a navigation bar with icons for ELN, Content, SOP's, Simplified protocols, and Attachments. On the right, there are icons for a bell, a user profile labeled 'student', and system controls. Below the navigation bar, the title 'ELECTRONIC LAB NOTES' is displayed, followed by a breadcrumb trail 'ELN' with a back arrow. A search bar with the placeholder 'In records' and a magnifying glass icon is on the right. The main content area shows a list of folders under the heading 'Name'. The list includes 'Shared with me' (selected), 'Shared with others', '.HELP', '.TRASH', 'SV-BA4 2018-2019' (highlighted with a black arrow), and 'Test'. At the bottom of the list, it says 'Total rows: 6 / Selected: 0'. The footer contains the text 'SLIMS 6.1.123 - [License](#) - Training'.

Start a new Laboratory Work

- ✓ Enter the appropriate Laboratory Project
- ✓ See your current folder and navigate via the breadcrumb bar



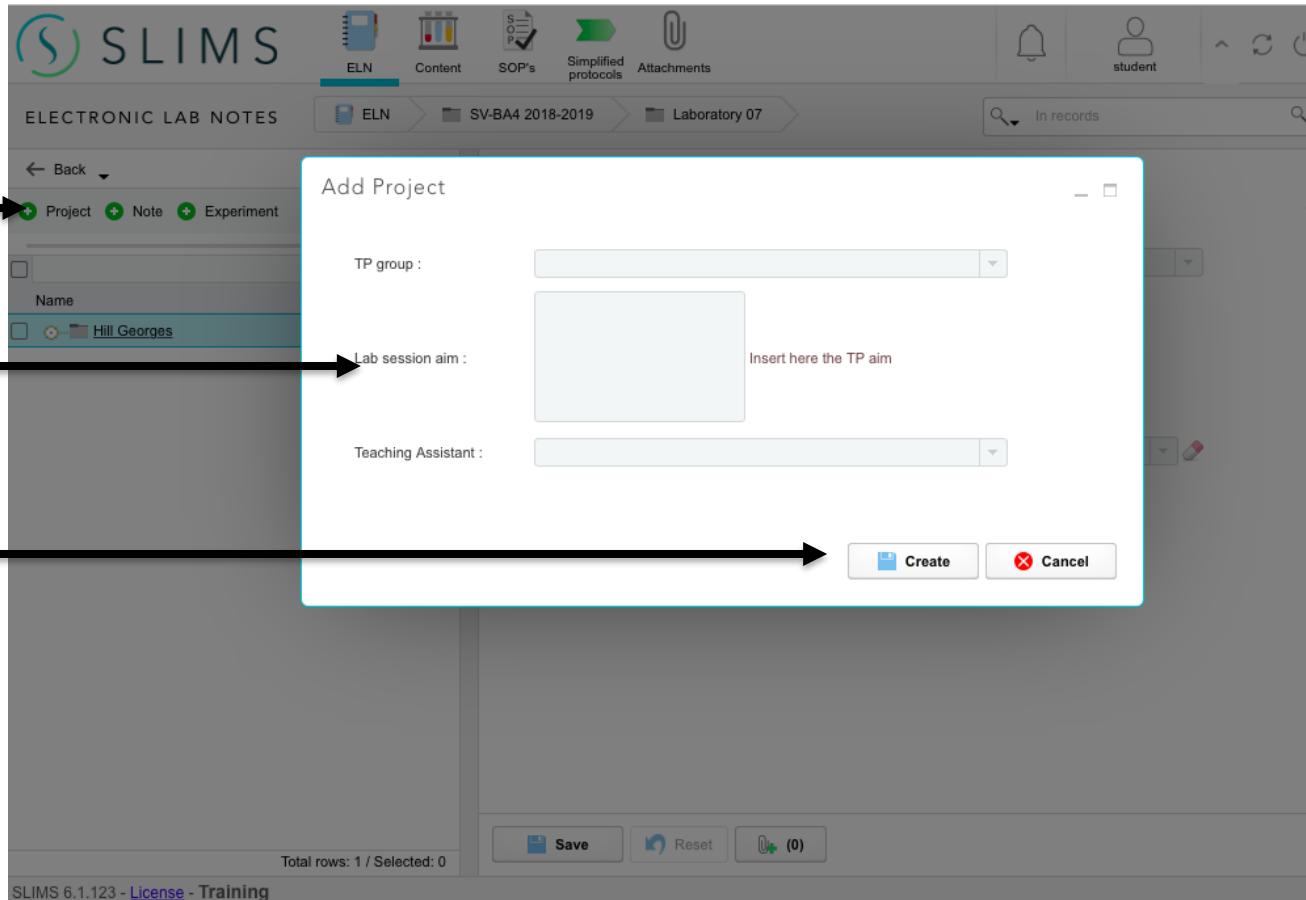
The screenshot shows the SLIMS (Electronic Laboratory Notebook) software interface. The top navigation bar includes icons for ELN, Content, SOP's, Simplified protocols, and Attachments, along with a student profile and a search bar. The breadcrumb bar indicates the current location: ELECTRONIC LAB NOTES > ELN > SV-BA4 2018-2019. The main content area is titled 'Project' and displays the following details for 'Laboratory 07':

Name :	Laboratory 07
Created by :	argento
Created on :	14/01/2019 14:12
Last Modified by :	argento
Last Modified on :	23/01/2019 19:13

On the left, a sidebar lists project names: Laboratory 07, Laboratory 08, Laboratory 09, Laboratory 10, Laboratory 11, and Laboratory 12. The total number of rows is 6, and 0 are selected. At the bottom, there are 'Save', 'Reset', and a button for adding new entries. The footer includes the SLIMS version (6.1.123), a license link, and a training note.

Start a new Laboratory Work

1. Click on +Project to create your own Laboratory project
2. Fill the form
3. Click on create



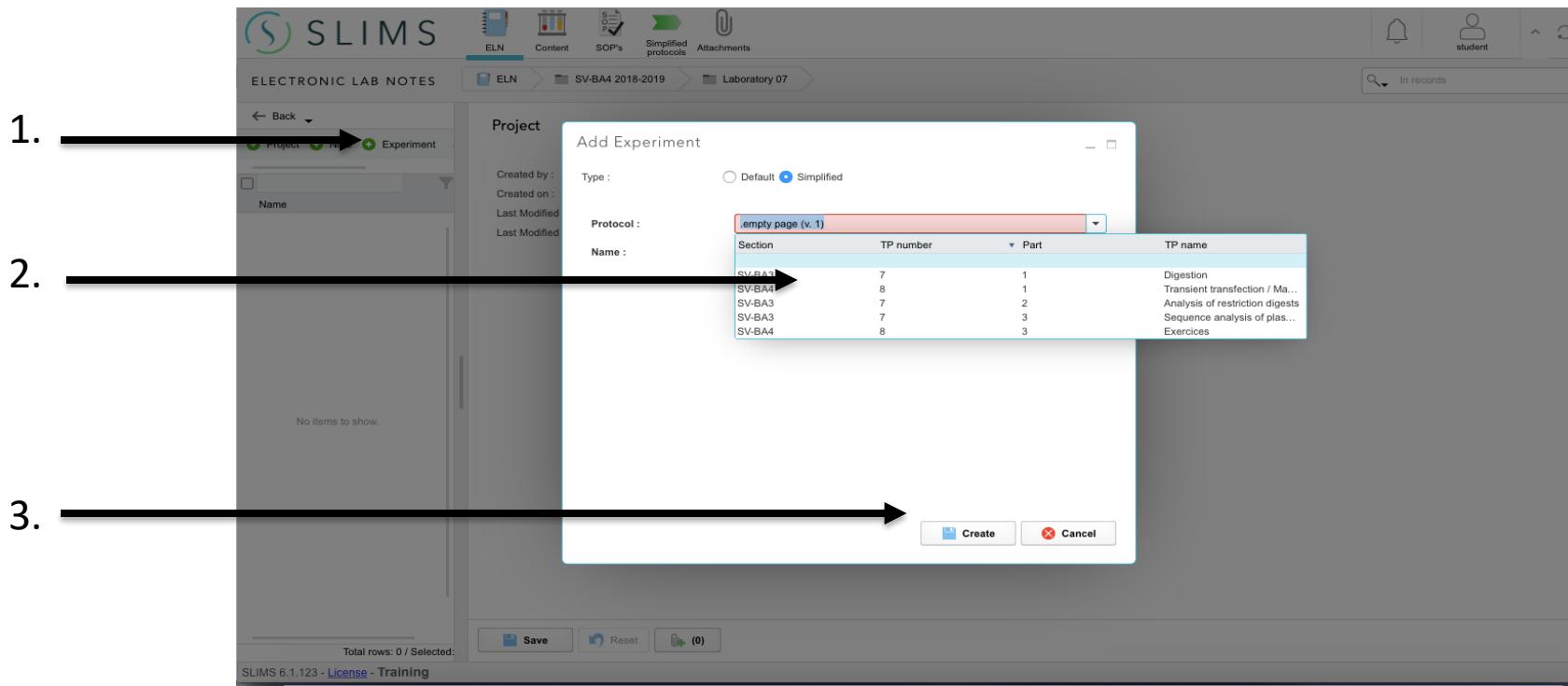
Start a new experiment

✓ Get in the project

1. Click on +Experiment to create an experiment
2. Choose the appropriate protocol (you may sort by TP number by clicking on “TP number” column header)

NB: One laboratory work can divided in multiple experiment. Start with Part 1. Create a new experiment for 2, etc.

3. Click on create



NOTES

Edit notes

1. Click in the text note
2. Explore and use the note toolbar here
3. Fill up the underline spaces

1.

2.

3.

Materials

- pAm2Myc (pcDNA6/Myc-His + Am2 insert)
- Bpu111I (FastDigest enzyme, Fermentas ; 1FDU/ μ l)
- Xba1 (FastDigest enzyme, Fermentas ; 1FDU/ μ l)
- EcoR1 (FastDigest enzyme, Fermentas ; 1FDU/ μ l)
- 10X Fast digest green buffer (Fermentas)
- Molecular biology-grade water (Fermentas)
- DNA ladder (see datasheet on Moodle)

*Definition of activity unit: 1 μ L of FastDigest enzyme (1 FDU) cleaves 1 μ g of substrate DNA in 5-15 minutes in 1X FastDigest Buffer

Link to material

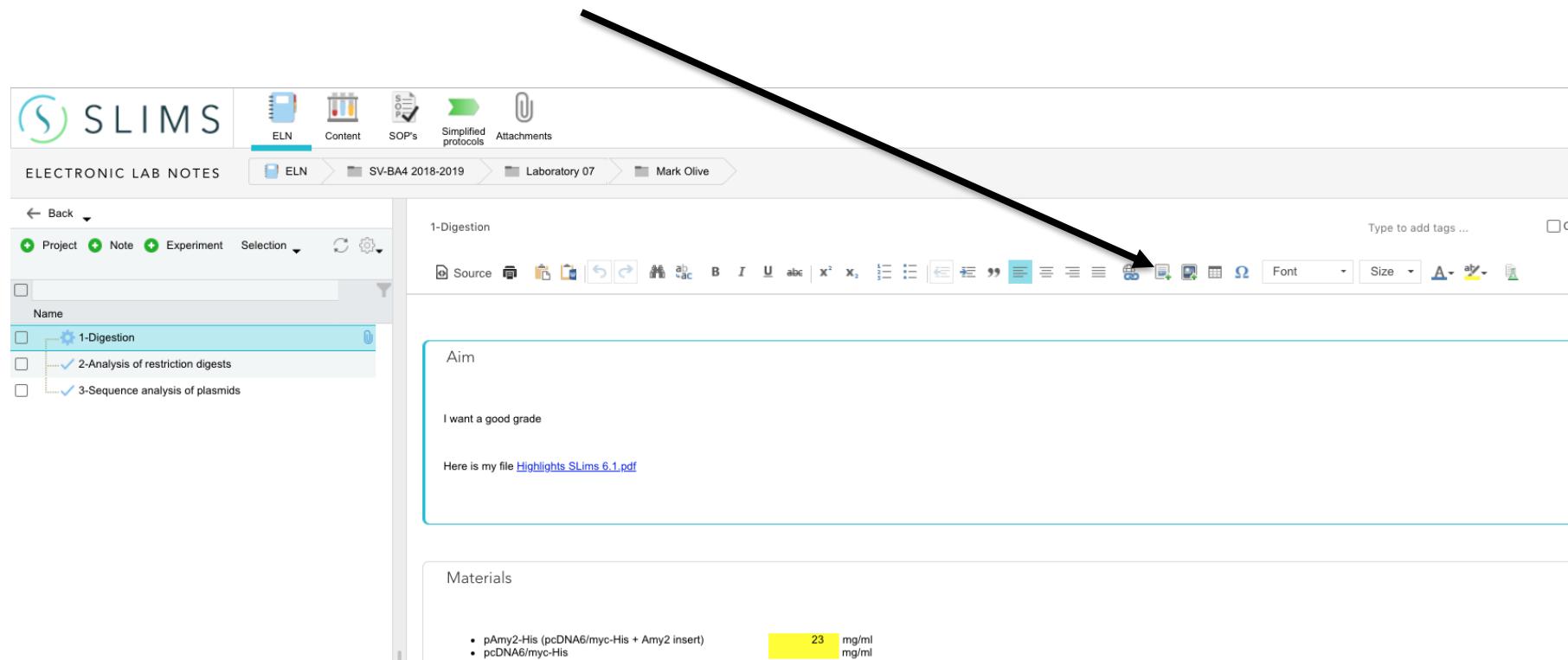
Type	Id	Name	Comment	Location
<input type="checkbox"/> Plasmid	SVTPp00002	pcDNA6/Myc-His B		Main lab

Attach file in notes

- ✓ In the text box, place your cursor where you want to put the file

Attach the file by :

- ✓ Drag and drop the file in the text box
- ✓ Use the "Attach file button" in the toolbar



The screenshot shows the SLIMS (SLIM Software for Lab Management) interface. The top navigation bar includes links for 'ELN', 'Content', 'SOP's', 'Simplified protocols', and 'Attachments'. Below the navigation is a breadcrumb trail: 'ELECTRONIC LAB NOTES' → 'ELN' → 'SV-BA4 2018-2019' → 'Laboratory 07' → 'Mark Olive'. The main content area is titled '1-Digestion'. On the left, a sidebar lists experiment steps: '1-Digestion' (selected), '2-Analysis of restriction digests', and '3-Sequence analysis of plasmids'. The main text area contains the following text:

Aim
I want a good grade
Here is my file [Highlights SLims 6.1.pdf](#)

Materials

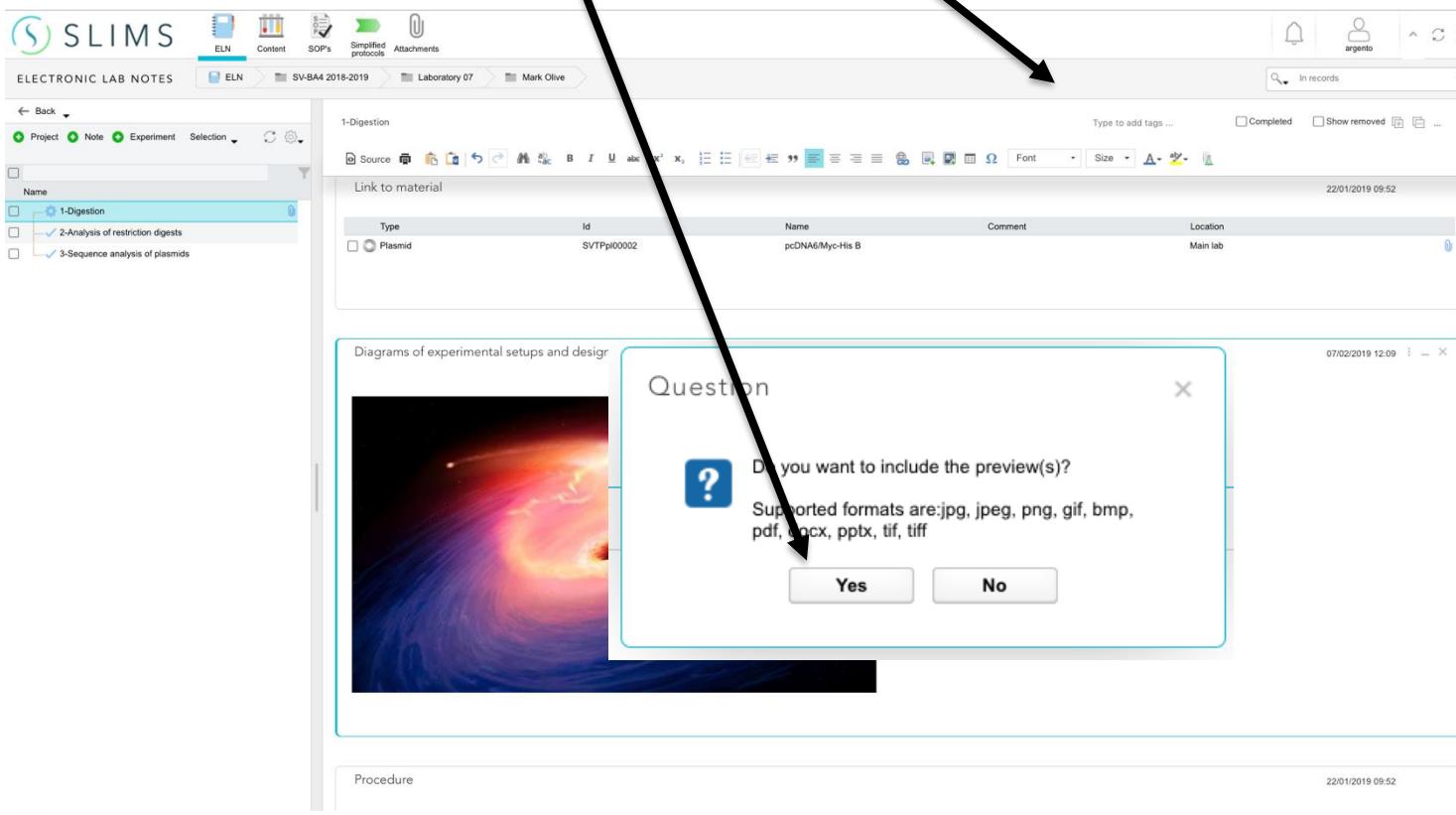
• pAmy2-His (pcDNA6/myc-His + Amy2 insert) 23 mg/ml
• pcDNA6/myc-His mg/ml

Attach file with picture preview in a note

- ✓ In the text box, place your cursor where you want to put the file

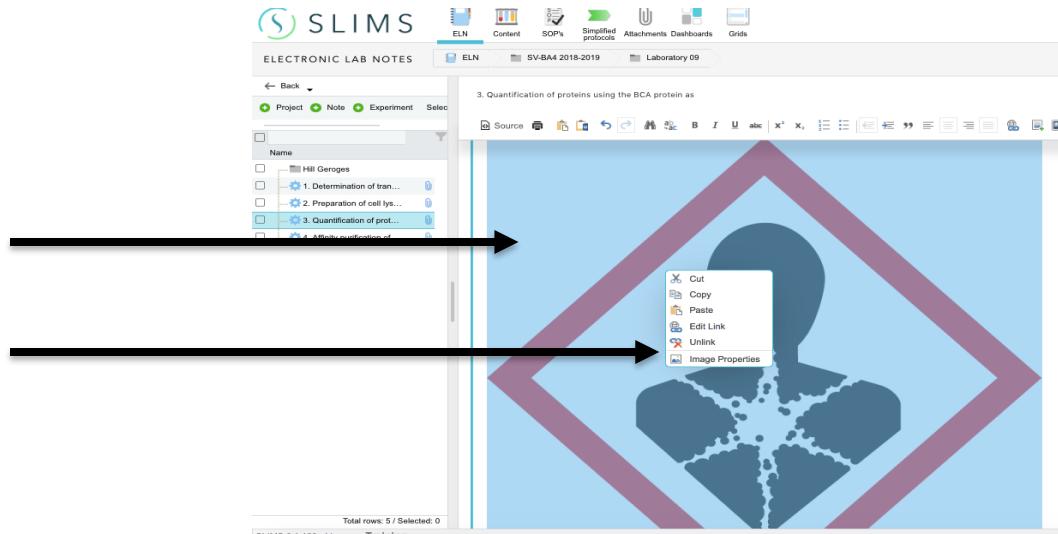
Attach the file by :

- ✓ Drag and drop the file in the text box
- ✓ Use the "Attach file image" in the toolbar
- ✓ Answer "Yes" in dialog window

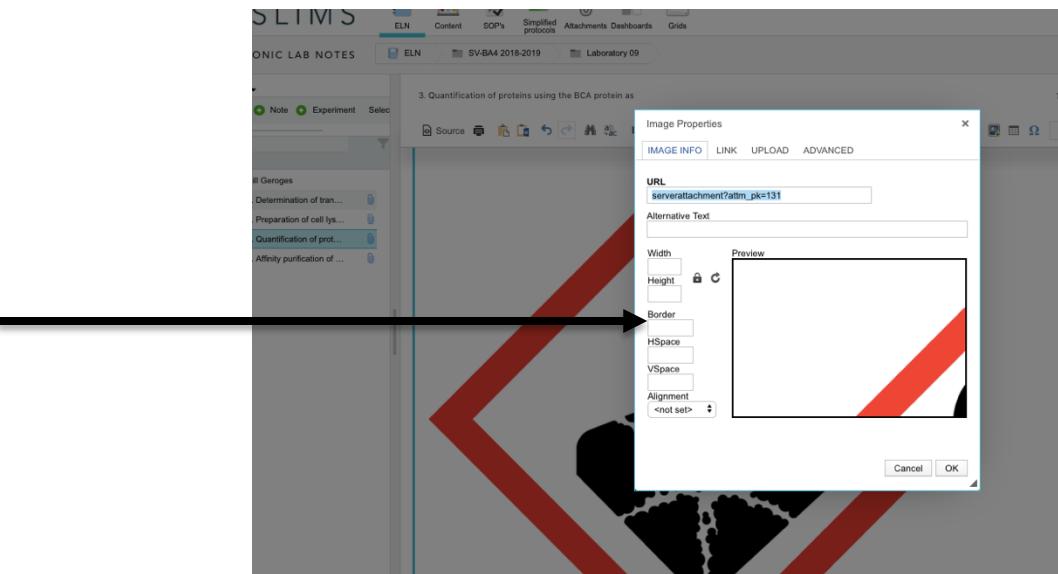


Adjust image size

- ✓ Right click on the image
- ✓ Click on image properties



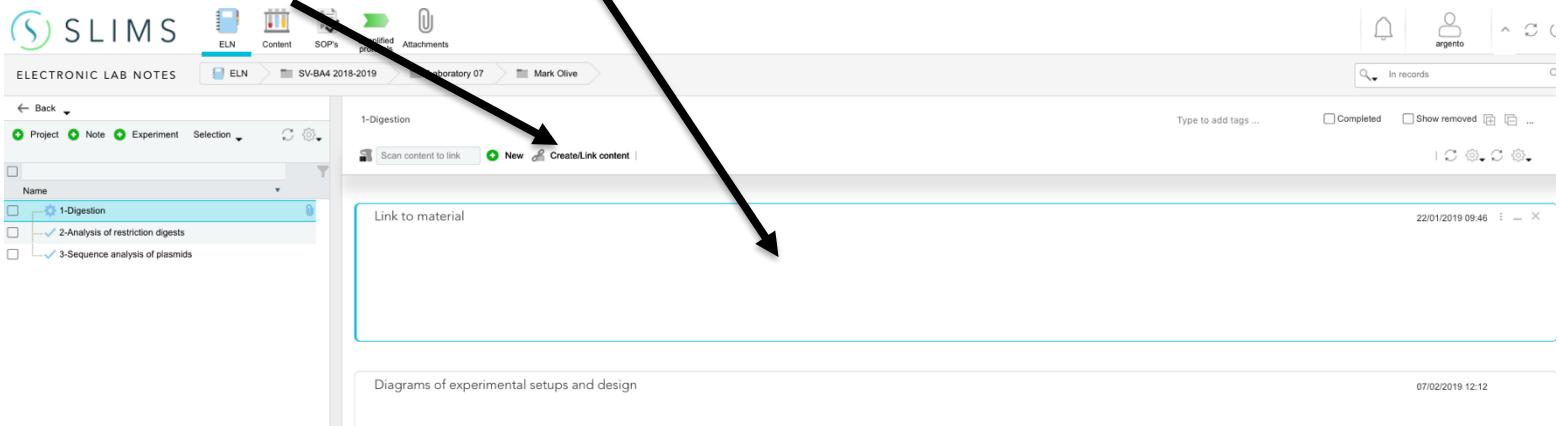
- ✓ Adjust width and height



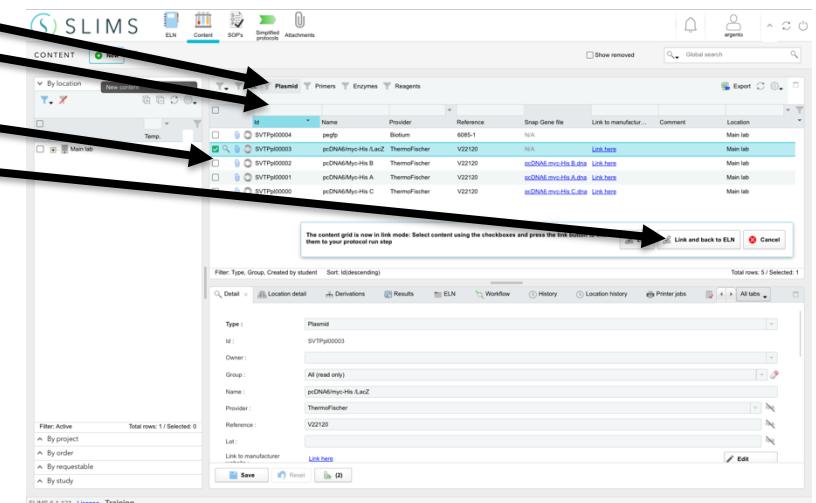
SAMPLES

Attach samples from the content database

1. Click in the “Link to material block”
2. Click on Create/Link content



3. Find the samples with filter and search bars
4. Select the sample(s) to link
5. Click on “Link and back to ELN”



Create a new sample

1. Click in the “Link to material block”
2. Fill the form. You don’t need to change amount and location
3. Click on create

1.

2.

3.

New content

Amount
Amount : 1

Address

Location : Choose a value
or scan location barcode : scan barcode OR type barcode and press Enter

Fill method : Row wise
 First empty First empty row Start from position
 Also search in sublocations

Content detail

Type :

Name	Description
Enzyme	
Plasmid	
Primer	
Reagents	

Id :

Owner :

Group :

Comment :

Status : Pending

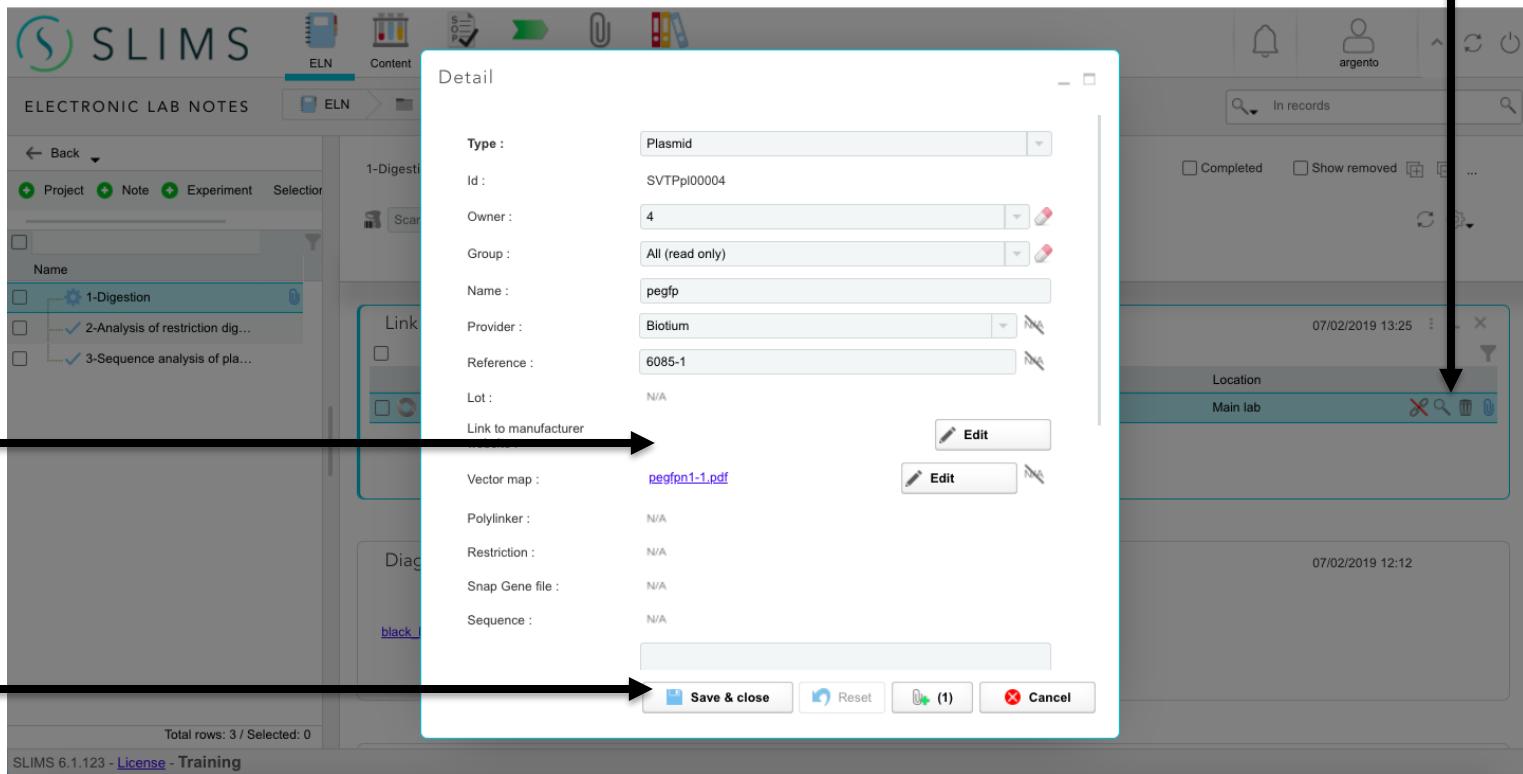
Create **Cancel**

22/01/2019 09:52

Read/Edit sample

1. Click on the magnificent lens
2. Edit the sample form
3. Click on “Save and close”

1.



2.

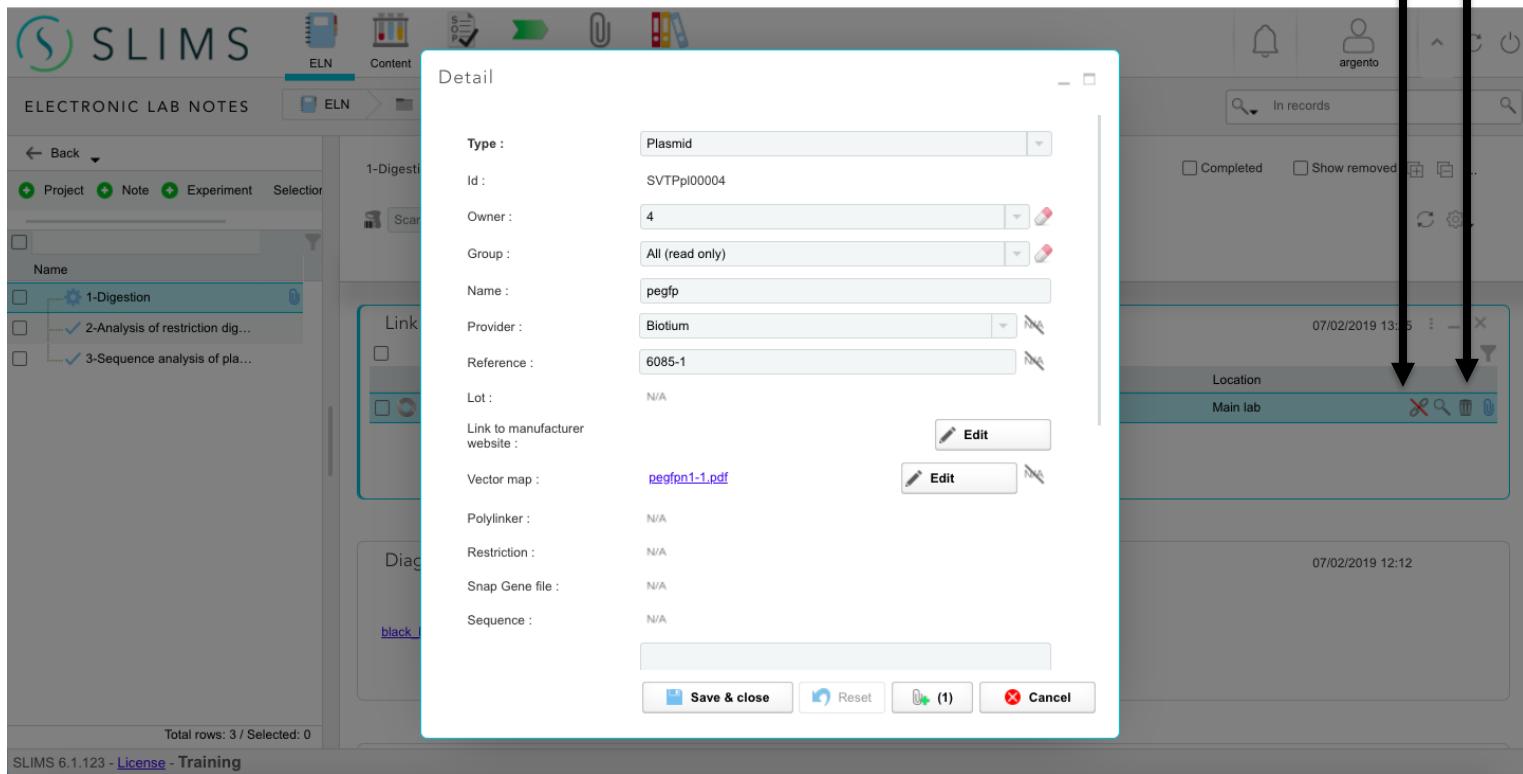
3.

Remove and unlink sample

1. Click the bin icon to remove the sample

Warning : a removed sample is still linked to your ELN. Remove here means “not anymore in the laboratory”

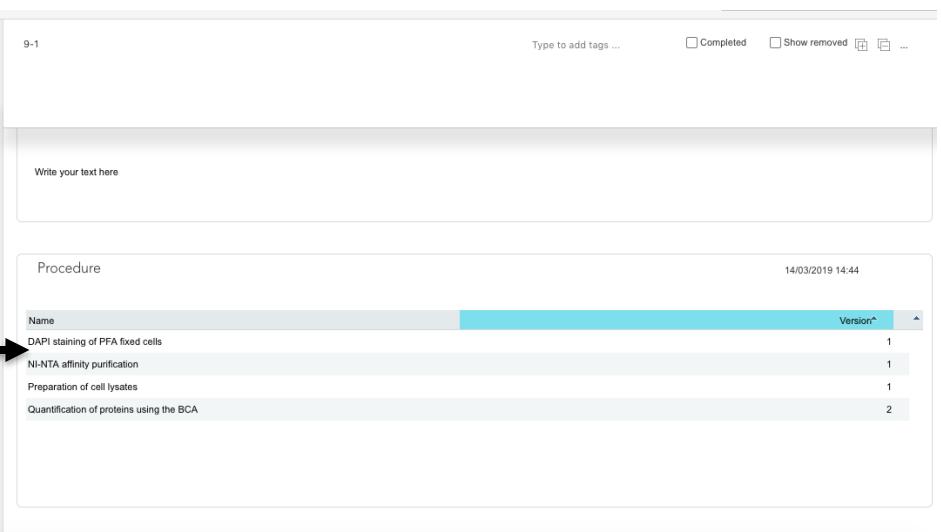
2. To unlink a sample click on the fist icon



SOP's

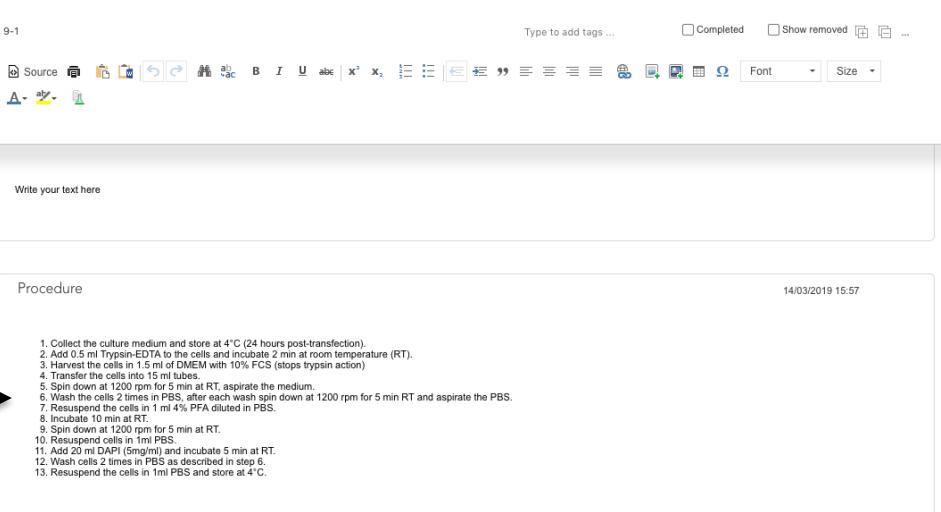
Use an SOP in a predefined block

1. Simply click on the SOP name you want to select



The screenshot shows a software interface with a 'Procedure' block. At the top, there is a search bar with the placeholder 'Type to add tags ...' and checkboxes for 'Completed' and 'Show removed'. Below the search bar is a table with a single row labeled '9-1'. The table has columns for 'Name' and 'Version*'. The 'Name' column lists several SOPs: 'DAPI staining of PFA fixed cells' (version 1), 'NI-NTA affinity purification' (version 1), 'Preparation of cell lysates' (version 1), and 'Quantification of proteins using the BCA' (version 2). The 'Version*' column shows the current version of each SOP.

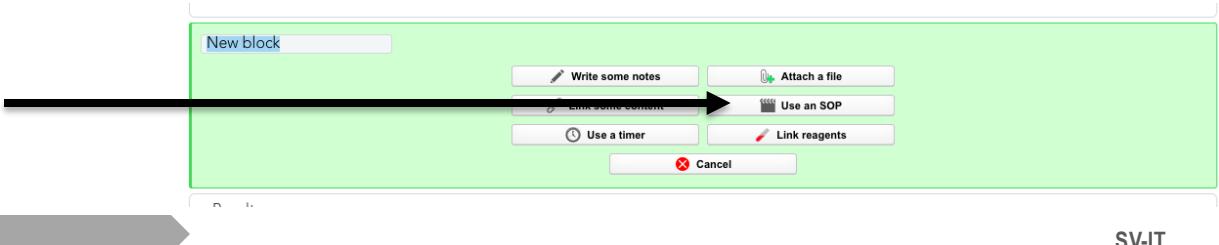
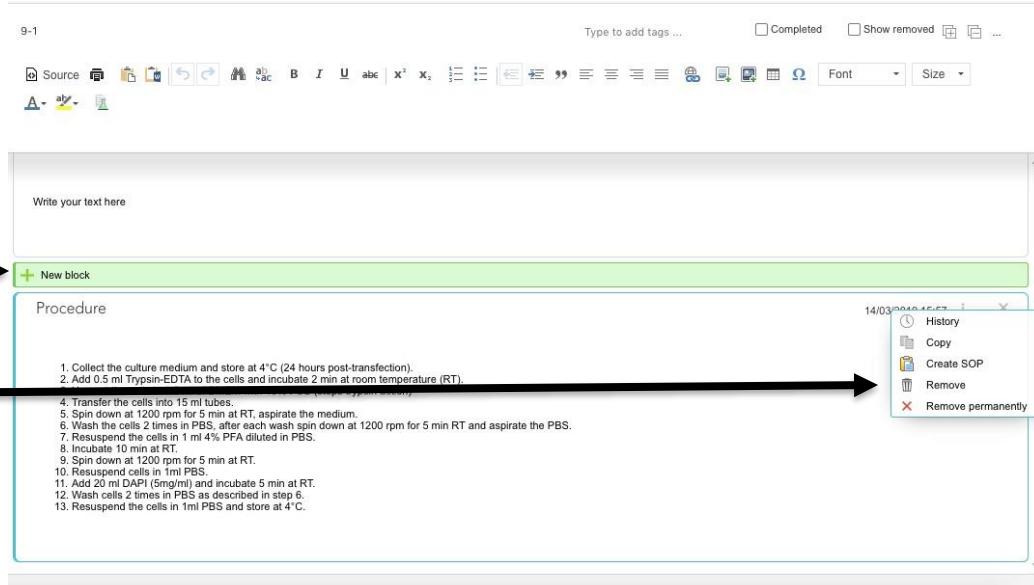
✓ The SOP appear in the block. You may edit it if needed



The screenshot shows the same software interface as the previous one, but the 'Procedure' block now contains the content of the selected SOP. The block includes a toolbar with various icons for text formatting and a large text area with the placeholder 'Write your text here'. Below this is another 'Procedure' block with the same header and table as the first one, but it now contains the detailed steps of the selected SOP: 'DAPI staining of PFA fixed cells' (version 1). The steps are numbered 1 through 13 and describe the process of collecting culture medium, adding trypsin-EDTA, harvesting cells, centrifuging, and staining with DAPI.

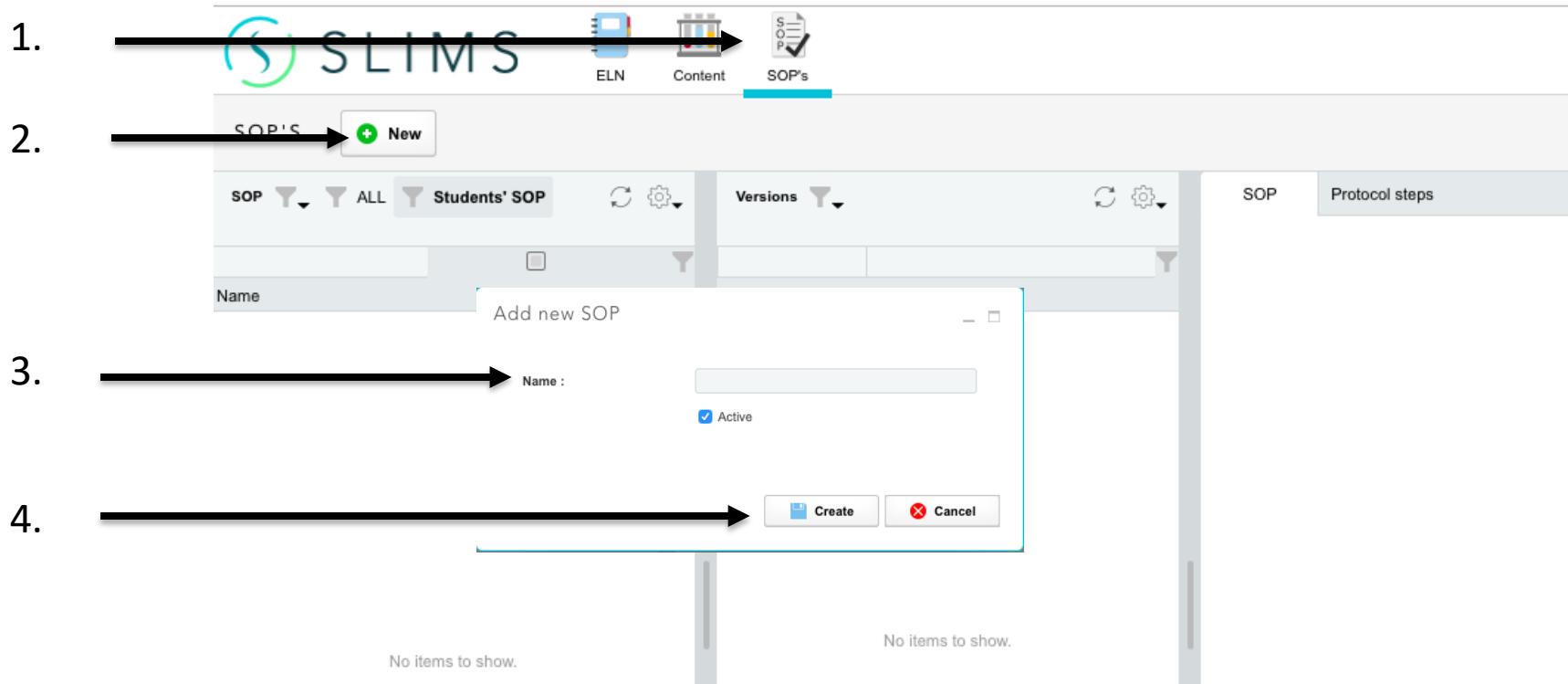
If you selected the wrong SOP

1. Remove the block here
2. Create a new block by clicking on “New block”. It appears if you mouse between 2 blocks.
3. Select use an SOP



Create your own SOP's (1/3)

1. Go in the SOP's module
2. Click on new
3. Enter a name
4. Create



Create your own SOP's (2/3)

1. Make sure your are in the Students SOP view
2. You are editing the draft. Only draft can be edited. Draft cannot be used in the ELN
3. Edit the SOP here and Save all your changes

The screenshot shows the SLIMS software interface. At the top, there is a navigation bar with the SLIMS logo, tabs for 'ELN', 'Content', and 'SOPs' (which is highlighted), and user icons for 'student' and 'Logout'. Below the navigation bar, there is a search bar with the placeholder 'SOP' and a dropdown menu showing 'ALL' and 'Students' S'. A table lists 'Name' and 'Active' status for an SOP named 'Cell culture'. To the right, a large panel is titled 'SOP' and contains a 'Warning' message: 'The current draft has been edited since the last version was made. This means the changes that have been done to it will not yet be available in ELN.' Below this is a 'Version' button. The main content area is titled 'Cell culture' and contains the following text:

Culture of HEla

Media:

- 500 ml MEM
- 10% FCS : 50 ml
- L-Glu: 2 mM final concentration, Stock 200mM : 5ml
- Non Essential Amino Acid: 1X : 5 ml
- Streptavidin 1X: 5ml

At the bottom of the content area, there is a note: 'Click anywhere outside this field to save changes and exit edit mode.'

At the very bottom of the interface, there are buttons for 'Save', 'Reset', and 'Version', along with a status bar that says 'Filter: Created by student Total rows: 1 Total rows: 1' and 'SLIMS 6.1.123 - License - Training'.

1. An arrow points to the 'Students' S' dropdown in the search bar.
2. An arrow points to the 'Draft' label in the table.
3. An arrow points to the 'Save' button at the bottom.

Create your own SOP's (3/3)

1. Once the SOP is ready. You have to create a first version by clicking on Version. You have to add a comment. Now you can use this SOP version in the ELN.
✓ Version cannot be changed anymore
2. To create a new version. Edit the draft and click on version again. The new version is now available in the ELN.

The screenshot shows the SLIMS software interface. At the top, there is a navigation bar with icons for ELN, Content, and SOP's. The SOP's tab is selected, showing a list of SOPs. A black arrow labeled '1.' points to the 'Version' button in the header of the list table. A second black arrow labeled '2.' points to the 'Version' button in a modal dialog box on the right. The dialog box displays a warning message: 'Warning: The SOP is currently inactive' and a 'Version' button. The main content area shows the details of an SOP named 'Cell culture'. The SOP details include:

Name : Cell culture

SOP :

Tissue culture
[1_1_Cell_culture_of_Hela_cells.docx](#)
Protocol 1_0: Culture of HeLa CCL-2 cells

ATCC number : CCL-2
Organism: Homo sapiens
Organ: cervix
Disease: adenocarcinoma
Cell Type: epithelial

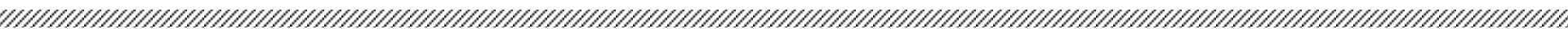
Media:

- 500 ml MEM
- 10% FCS : 50 ml
- L-Glu: 2 mM final concentration, Stock 200mM : 5ml
- Non Essential Amino Acid: 1X : 5 ml
- Streptavidin 1X: 5ml

Sub-culturing of the cell:

Split 1 in 6: take 2 days to grow
Warm up media
Aspirate media from plate
Wash with warm PBS

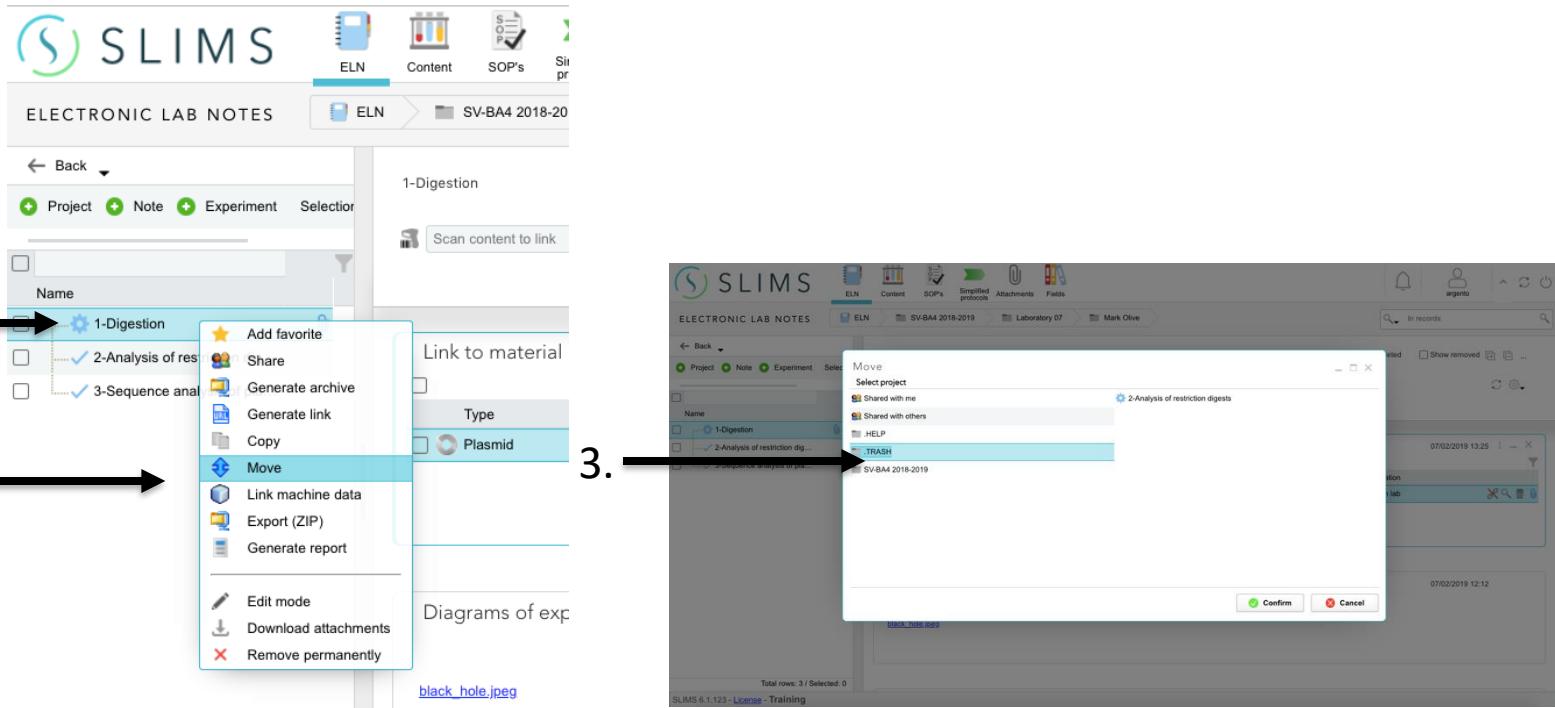
At the bottom of the dialog box are buttons for 'Save', 'Reset', 'Version', and a trash bin icon. The footer of the interface includes a 'Save' button, a 'Reset' button, a 'Version' button, and a 'Delete' button. The footer also contains the text 'Filter: Created by student To' and 'Total rows: 2'. The bottom left corner shows the SLIMS version 'SLIMS 6.1.123 - License - Training'.

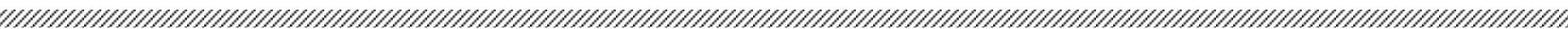


TRASH AN EXPERIMENT

Trash an experiment

1. Right-click on the experiment
2. Click on move
3. Select the .TRASH folder





COMPLETE YOUR WORK

Complete your work



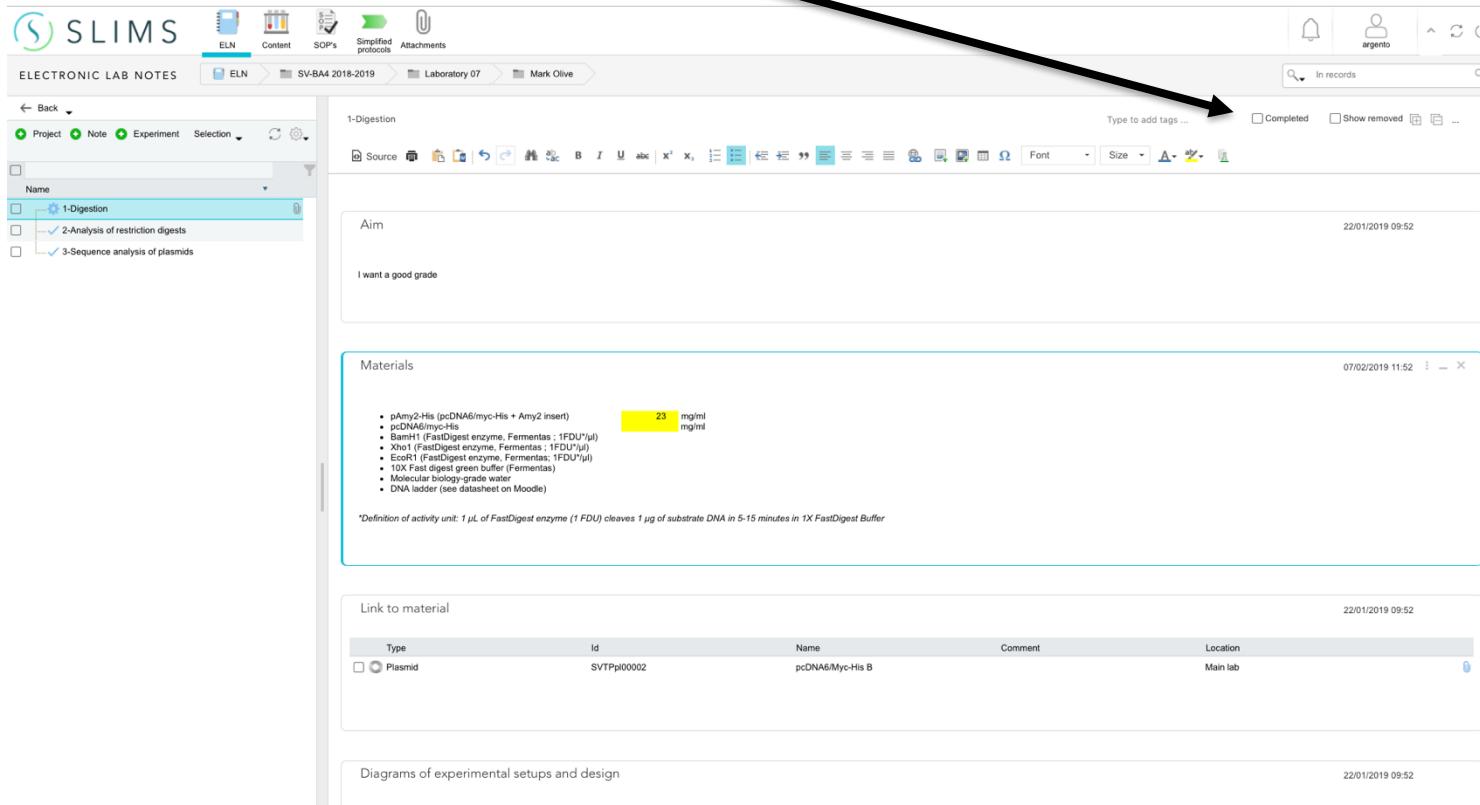
A completed experiment cannot be uncompleted !

**Nothing can be modified after you checked completed
The laboratory work is considered as done as soon as all
the experiment are completed.**

Complete all your experiment before the deadline!

Complete your work

✓ Check completed



The screenshot shows the SLIMS ELN software interface. A large black arrow points from the 'Check completed' text to the 'Completed' checkbox in the top right corner of the experiment record. The record details an '1-Digestion' experiment with the following sections:

- Aim:** I want a good grade. (Timestamp: 22/01/2019 09:52)
- Materials:** A list of reagents including pAmy2-HB (pcDNA6/myc-His + Amy2 insert), pCDNA6/Myc-HB, Bpu1I (FastDigest enzyme, Fermentas; 1FDU/μl), Xba1I (FastDigest enzyme, Fermentas; 1FDU/μl), EcoRI (FastDigest enzyme, Fermentas; 1FDU/μl), 10X Fast digest green buffer (Fermentas), Molecular biology-grade water, and DNA ladder (see dataset on Moodle). A yellow box highlights the concentration '23 mg/ml'. (Timestamp: 07/02/2019 11:52)
- Link to material:** A table showing a Plasmid entry with ID SVTPp00002, Name pcDNA6/Myc-His B, and Location Main lab. (Timestamp: 22/01/2019 09:52)
- Diagrams of experimental setups and design:** A section for diagrams of experimental setups and design, timestamped 22/01/2019 09:52.