

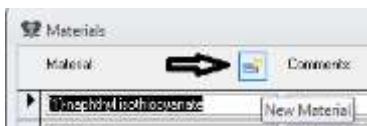
## Entering Materials in labElephant

Materials used in Experiments can significantly impact experimental outcome. Also, research laboratories typically need some method of tracking materials, just to manage and find inventory. labElephant therefore tracks Materials, and makes the association of materials with Experiments easy (see “Entering Experiments in labElephant”). Materials can include chemicals, biochemicals, antibodies, vectors, or any other kind of supply material used. While a record is kept of who acquires each Material, the form shows all Materials for the lab.

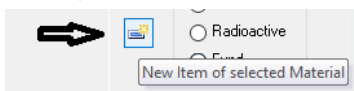
The subform is structured for easy recording of the order status history of the item; from the prospect of purchase, to request for purchase (and which fund was to be used), to ordering, to receiving and storage, along with who does each stage. A tally of expenditures on materials is shown on the right, and reports of materials and of fund expenditures are easily generated.

To enter a new Material:

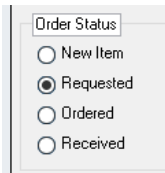
1. From the Switchboard form, log in, and select the Materials button to open the Materials form.
2. On the form header, select the New Material button:



3. In the new record, enter the name of the material under Material, and under Comments enter any information about the material that may be helpful (e.g. “acetylcholinesterase inhibitor”). If the material falls into any of the Controlled, Hazardous, or Radioactive categories, check the appropriate boxes.
4. Below, select the New Item button:

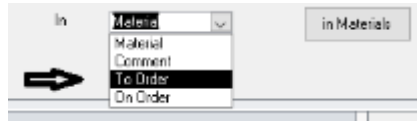


5. On the subform, enter details about the new material:
  - a. Researchers interested in a particular new item can paste a link to the web page for the item, enter the amount to be purchased, and select the fund to be used (funds shown in the list are those entered by the PI via the Switchboard->Edit form). The vendor can be selected from the drop-down list (new vendors can be entered via the button on the right), and the catalog number of the item can be entered.
  - b. When the researcher decides to buy the item, they select the Requested option button:

A screenshot of the 'Order Status' field. It shows a dropdown arrow and four radio button options: 'New Item', 'Requested', 'Ordered', and 'Received'. The 'Requested' option is selected.

The “Requested by” field is automatically filled in as the person who is checked in (but can be changed), and the date is automatically today’s date (but can be changed).

- c. When the item is actually ordered, the Cost field should be filled in, and the Ordered option button is selected. Since labs may have a single person who does all the ordering, there is a simple way for them to pull up all the requested items: From the Switchboard form, open the Search form, and select the “To Order” option for Materials, then select the “in Materials” button:



Only the requested items will populate the Materials form that comes up.

- d. When the order is received, the “Received by” option button should be selected, and the “active” check box is then automatically selected. Active status means you actually have it. The receiver can then enter the Lot # and Formula Weight, and select the Location where the item is stored (new Locations can be entered from the button to the right of the subform).
- e. Users of the item can calculate solution strengths using the  $\Sigma$  button (see Section 7 below), to minimize errors, and item usage can be recorded in the Comments field. When the item is used up, the “active” check-box should be deselected, by the person who disposes of it.
- f. Items on the subform can be filtered (bottom right). This helps by selecting just for items that the lab actually has (“Active Only”), or for items that are in process for acquisition.
6. To find a material, enter its name in the Search field at the bottom of the Materials form, and hit Enter until you reach the material you are looking for:

Material	Comments	Requested	Ordered	Controlled	Hazardous	Radioactive
fura red AM	acetoxymethyl ester of fura red for cell labeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fura red tetrapotassium salt	cell impermeant long wave-length fluorescent (340/380nm) Ca inc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fura-2 Na	intracellular fluorescent (340/380nm) Ca indicator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fura-2 AM	acetoxymethyl ester of fura-2 for cell labeling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fura-4F AM	Low affinity Ca dye	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fluorescein	Dissolves in DMSO, or aqueous above pH 8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Item Material: fura-2 Na    Comments: Was made up to 2mM in 10mM K-HEPES pH 7.4

Location: freezer    Amount: 1mg    Formula Weight: 751    Active:

Order Status:  New Item    Found by: Rob Haworth    On: 11/2/2004  
 Requested    Requested by: Rob Haworth    On: 11/2/2004  
 Ordered    Ordered by: Kathy Potter    On: 11/3/2004  
 Received    Received by: Kathy Potter    On: 11/6/2004

Vendor: Molecular Probes    Catalog #: F-1200    Lot #: 2641-1    Cost: \$79.00



Spent: \$672.00    Budget: \$13,760.00

Web Page: <http://www.themolisher.com/order/catalog/product/F67397/CID=search/product>

Fund Used for Purchase: NIH R01HL61534 Alterations in the dyed cleft in failing cardiomyocytes cleft

Record: 11 of 1 of 1    Unfiltered    Search


You can then either browse through the items you have of that material, or search for an item using the search box on the subform.

7. To calculate solutions, select the  button to open the Calculate Solutions form. This provides for the three ways in which solutions can be calculated, based on the Formula Weight entered in the top box. Data is entered into the two fields to the left of the vertical line, the “Calculate” button to the right of the line is selected, and the answer is given in the field to the right of the vertical line. First (top line), if you need a certain volume (in ml) of a certain concentration (in mM), enter these parameters on the left, and the calculation will yield the amount of Material that must be weighed. Second (middle line), if you have a certain amount (in mg) of Material, and you want a solution of a certain concentration (in mM), enter these parameters on the left, and the calculation will yield the volume (in ml) of solvent required. Third (bottom line), if you have a certain volume of solvent (in ml) that contains a certain amount of Material (in mg), the calculation will yield the concentration of Material (in mM). The Calculate Solutions form may be accessed directly from the Shortcuts on the ribbon bar at any time, by selecting the Weigh button  .

8. A report of current (active) items inventory can be generated by selecting the Items Report button, after selecting any filtering option button:



The report is saved to the folder specified on the “PI settings” form.

9. An Excel report of expenditures by fund can be generated by selecting the  button to the right of the Fund Used for Purchase drop-down box on the subform. The report is saved to the folder specified on the “PI settings” form.
10. Items entered on the Materials will show in the drop-down box for Materials on the Experiments form, under the Materials and Methods tab. This conveniently facilitates the selection and accurate recording of Materials used in each Experiment.