STANDARD OPERATING PROCEDURE				
A Ragon Institute of MGH, MIT and Harvard	Peptide Acces	Peptide Access Process		PC-SOP-001
	Originated by:	Michael Baladiang	Date:	28 April 17
	Laboratory:	Processing Laboratory	Pages:	1 of 4
	Approved by:	Ildiko Toth		

I. PURPOSE:

The purpose of this procedure is to outline the procedure to be carried out for accessing peptides at Ragon Institute.

II. SAFETY:

This protocol needs to be carried out in the BSL1 laboratory.

III. REQUIREMENTS:

Item	Manufacturer	Order Number
Nunc 1.8 mL cryovials (external thread, no	Nunc	375418
gasket)		
Nunc 1.8 mL cryovials (internal thread, with	Nunc	377267
gasket)		
Fisher 2 mL microcentrifuge vials (with lid & O-	Fisher	02-681-375
ring)		
15-mL polypropylene conical tubes (17 x 120	Falcon	352097
mm)		
50-mL polypropylene conical tubes (30 x 115	Falcon	352098
mm)		

IV. PROCEDURE:

Access to peptides already in the lab:

- 1. Make sure the peptides you would like to request are available in the repository by searching for your desired sequence(s) in the CIDB (Search > Query Builder > Canned Reports > Peptide Mgmt). You may:
 - a. Look up a particular sequence using the "Peptide Bank Inventory Search by Peptide Sequence" report.
 - b. Search for all available peptides using the "Peptide Bank Inventory All Available Peptides" report. Once this report is run, a list of all available peptides can be downloaded and opened using Excel. The report can then be searched by peptide sequence or name. Searching by peptide sequence will yield better results, as not all peptides are accurately/uniformly named.

Note: These reports include peptide type (powder or solution) and concentration.

2. Once you are sure your desired peptides are available, use the CIDB peptide request function to put in your request.

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- 3. To use the peptide request management in CIDB, go to the peptide request management under the utilities tab.
 - a. Define a peptide request by putting in the date, adding the email of the recipients and clicking save.
 - b. Go to the build a peptide request tab and select the order number that was just created.
 - c. Add the sequence of the peptides desired and choose which of the peptides you want from the drop down menu. Click add to order to put the requested peptide on your list.
 - d. Once everything is added, hit submit request at the bottom of the page and the coordinator will be notified of your request.
 - e. If there are any problems with the peptides requested, the coordinator will get in contact with you and let you know other options.
- 4. Once your peptides have been pulled, you have a week to weigh them and return the excess to the peptide freezer.
 - a. See SOP #23-00: Peptide Weighing for instructions. Do not weigh any peptides unless you have been trained here.
 - b. Please **keep peptides** in the order they were placed in the rack when pulled and do not remove peptides from the freezer unless you are actively weighing them.
 - c. If you do not have enough of a sequence, check with the Coordinators to see whether there's another tube that can be used to add to what you have.
- 5. When you have finished weighing all your peptides, please write "Done" or something similar on the sticky label with your name on the rack. Return even EMPTY tubes so that they can be logged out of the inventory. Once weighed, personal aliquots of reconstituted peptides can be kept in -20°C freezers or 4°C refrigerators/cold rooms in your respective lab.

ORDERING PEPTIDES NOT ALREADY IN THE LAB:

1. Download **SOP#24-04: Peptide Synthesis Request** Form, fill in the required information, and email it to the Peptide Coordinators (mbaladiang@mgh.harvard.edu)

Note:

- a. Check the CIDB to see if any desired peptides are available from the repository before placing a synthesis request.
- b. Place your order in time for Ashok to deliver it BEFORE the fund you are using is closed. He may not be able to bill you until he has delivered the finished peptides.
- c. Although Ashok can make peptides in about 2-3 weeks if necessary, we shouldn't make all orders RUSH orders. Try to anticipate your needs so that you can wait 4 or 5 weeks for the peptide, if possible.
- 2. The Peptide Coordinators will put the order in with Ashok, track it, label the peptides when they arrive, and notify you when they are in the peptide freezer ready to weigh.

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3. You now have a week to weigh your peptides and return the excess to the peptide freezer. Please follow the same procedure as for peptides already in the lab (see above).

PEPTIDE SOLUTIONS: SPECIAL STOCKS /ALIQUOTS:

ALL CURRENTLY AVAILABLE PEPTIDES IN SOLUTION ARE INCLUDED IN THE "PEPTIDE BANK INVENTORY – ALL AVAILABLE PEPTIDES" REPORT THROUGH THE CIDB. THE ONLY SUPERSTOCKS (40MG/ML IN DMSO) MAINTAINED FOR GENERAL LAB USE ARE 18-MER HIV PEPTIDES IN THE CONSENSUS 2001 CLADE B OLPS AND THE CLADE B OPTIMALS. ALL OTHER PEPTIDE SOLUTIONS ARE NOT REPLACED WHEN THEY RUN OUT.

Obtaining Clade B OLP (Consensus 2001) superstocks / Clade B Optimal Peptide superstocks

- 1. Notify the Peptide Coordinators (mbaladiang@mgh.harvard.edu) by email which OLPs you would like to request and the amount of superstock desired (please note that the **maximum aliquot is 10** □ L of 40 mg/mL superstock for any one peptide).
- 2. Provide the Coordinators with labeled cryovials:
 - a. **For OLPs include**: the **OLP number** (the one that gives the position within the whole genome) AND the **sequence**. Have vials ordered by OLP number and label the cap inserts. **SOP #24-05: B001-B425 Consensus '01 Labels** contains a set of filled in Avery 5267 Return Address Labels ready to print.
 - b. **For Optimals Include**: the peptide **name**, **sequence**, **AND concentration**. Please also use a cap insert and label it *legibly* with the peptide name (Allele-letters & No.AA—e.g., A11-PK8)
- 3. Give the Peptide Coordinators extra time (over that required to pull dry peptides) to do the aliquoting. The whole procedure may take 3 weeks or more if the request is for many peptides.
- 4. Once the peptides have been aliquoted, they will be placed in the -20° C peptide freezer and you will be notified by email that they are ready.

Peptide Solutions—Pools:

- 1. General notes:
 - a. Pools, with some inherited exceptions, are **NOT** ready to be given out like the superstocks of Clade B OLPs and Optimals. They are a **SPECIAL ORDER** item, and they are ONLY available for Clade B OLPs and Optimals, because the necessary superstocks aren't maintained and ready to use for other sets of peptides.
 - b. If you need ONLY a pool, EMAIL the Peptide Coordinators (<u>cpalmer8@partners.org</u> <u>and</u> <u>mromerotejeda@partners.org</u>) with the following information:
 - 1) The numbers/names and *sequences* of the peptides you want in the pool.
 - 2) The *final* concentration of each peptide in the pool.

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- 3) How much (*final* volume) of the pool you want.
- 4) Whether, if you are using more than one pool, you want to make the concentration of DMSO per pool the same.
- c. The Peptide Coordinators will then take the necessary amounts of peptide superstocks (and DMSO, if you're making the DMSO concentration of more than one pool the same) into a polypropylene tube and email you with the information that it's ready in the peptide freezer and what you need to do to make it the concentration per peptide that you want.
- 2. If you need **both** aliquots of individual peptides **and** pools of mixtures them, you should ask the Peptide Coordinators for extra-large aliquots of the individual peptides and make the pools yourself. See SOP #25-00: Peptide Storage, Reconstitution, and Pools for instructions.

V. REFERENCES/ ADDITIONS/ NOTES:

- 1. **ALL peptides are distributed by the Peptide Coordinators,** and only the Peptide Coordinators are permitted to access the peptide repository. Peptides should be requested from lab stocks or ordered newly synthesized only through the Peptide Coordinators.
- 2. Be considerate and do **not** deplete stocks unnecessarily. It is important not to waste peptide and to save money on re-synthesis by taking only what you need. In most cases, you will not need to take more than **2 mg** to prepare stocks that last for as long as you need them. Please note that the Peptide Coordinators will give out no more than **10μL** of dissolved peptides.