AMERICAN UNIVERSITY OF BEIRUT
UNIVERSITY RADIATION SAFETY COMMITTEE

APPLICATION FOR POSSESSION AND USE OF RADIONUCLIDES

Complete all applicable items and sign application. Make one additional copy to keep for your records and send the original to the Health Physics Services (HPS).

PLEASE TYPE OR PRINT IN INK. DO NOT USE PENCIL

1. APPLICANT

For joint authorizations, underline the name of the person who will be the principal authorized user for communications, ordering radioactive materials, etc. The Training and Experience information must be completed for each applicant.

Applicant(s): _____

Campus Address: _____ Phone: _____

E-Mail: _____

2. TYPE OF APPLICATION

- ❑ New – If currently not authorized to possess radionuclides at AUB. Complete all items.
- ☐ Amendment – Complete applicable items, also use **Minor Change to Nuclide Authorization Form.**
- ☐ Renewal – Required every three years. Complete all items.

3. NUCLIDES

Complete table for each nuclide, generic descriptions (e.g., amino acids, sugars, etc.) are acceptable.

Radionuclide	Chemical Form	Physical Form[1]	Order Limit[2] (mCi)	Possession Limit[3] (mCi)

1 Physical Form – Solid (S), Liquid (L), Gas (G), or Sealed Source (SS)
2 Order Limit – The maximum activity needed per order (vial, kit, etc.)
3 Possession Limit – The maximum activity on lab's inventory at any time

4. USES

Besides benchtop research, radioactive materials will also be:

- ❑ Administered to or used on humans.
- ❑ Used in vertebrate animals.
- ❑ Used in a class, Course # _____ (attach radiation safety training outline).

5. PROTOCOL SUMMARY

Using the **Protocol Summary Sheet** (copy as needed), briefly describe your intended use for each radionuclide. Detailed iodination protocols are required.

6. ROOMS

List all room number(s) and building(s) where radioactive materials will be used, stored, or counted.

Use Rooms/Buildings	Count Rooms/Buildings	Waste Rooms/Buildings

7. TRAINING

Personnel working with radioactive materials in your radionuclide labs must read the manual Radiation Protection handbook, attend the training class and pass the radiation exam. What additional training/instructions will you give your radionuclide workers and workers who may be occasionally exposed (custodians, etc.) to radiation in your lab?

- ❑ New personnel will be trained in the handling, safe use of radionuclides, in the use of survey meters, wipe tests, and record keeping used in my labs by me or one of my trained personnel.
- ❑ Additional training specific to this lab: _____

8. ALARA (As Low As Reasonably Achievable)

What precautions will you take to minimize exposures to your personnel from radioactivity during use or while in storage? Radioactivity will be used and/or stored:

- ❑ Behind an appropriate shielding material.
- ❑ In a separate room or area not frequented by personnel.
- ❑ In an approved hood for volatile radionuclides.
- ❑ By personnel wearing protective clothing (e.g., lab coat, disposable gloves, safety glasses, etc.).
- ❑ Other (specify): _____

9. RADIOACTIVE WASTE

What method(s) will be used to dispose of your radioactive wastes?

- ❑ Separation by nuclide and physical form, and package for pickup by HPS.
- ❑ Decay.
- ❑ Waste generation not anticipated.
- ❑ Other (specify): _____

10. SECURITY/SUPERVISON OF RADIOACTIVE MATERIALS

How will you secure radioactive materials when no radiation workers are in the lab?

- ❑ Materials will be stored in a locked cabinet, refrigerator, or freezer (mandatory for stock vials).
- ❑ Room will be under direct supervision when radioactive materials are present or unsecured.
- ❑ Room or building will be locked when lab personnel are not present.
- ❑ Other (specify): _____

How will you secure radioactive waste to prevent loss or theft?

- ❑ Waste container will be conspicuously marked, decay waste container/room will be locked.
- ❑ Other (specify): _____

11. RADIATION SURVEYS

At what frequency will your radionuclide rooms be surveyed?

- ❑ Specify: _____

12. SURVEY METERS/WIPES

What type of survey meter will you use to measure radiation count rates and/or exposure? If you borrow a survey meter from another lab (Not Recommended), list PI and Serial Number (SN) below.

- ❑ Meter Type: _____ Model/SN: _____
- ❑ Not applicable (sealed sources or ^{3}H only)
- ❑ Other (specify): _____
- ❑ Survey instruments will be calibrated at least annually by: _____

What system will you use to count wipe survey samples?

- ❑ Liquid Scintillation Counting (LSC) –Building/Room: _____
- ❑ Other (specify): _____

13. TRAINING AND EXPERIENCE

Provide a description of the type of training and experience that pertain to radioisotope handling techniques. Include information on topics, location, duration, type of training, and radionuclide.

PLEASE READ BEFORE SIGNING:

I agree to abide by all applicable regulations regarding the use of radionuclides as set forth by the Lebanese Regulations, and the University Radiation Safety Committee (URSC), including, but not limited to the following University Radiation Safety Regulations (URSR):

1. At no time will food items be handled or stored in the laboratory.

2. All room where radionuclides are used, stored or disposed will be surveyed in accordance with URSR. All areas will be posted and containers labeled in accordance with the URSR. Stock vials will be stored in locked containers.

3. All purchase requests of radioactive materials must be approved by the RSO or HPS. All shipments of radioactive materials, whether purchased, loaned or gift, must be addressed to and received by HPS.

4. Records of radionuclide receipt, use, and disposal (i.e., inventories) will be maintained by using a radioactive material record form as specified by the URSR. Radioactive wastes will be disposed in accordance with the URSR.

5. Transport of radioactive materials to and from the AUB, to and from any branch of the University, and to and from separate buildings on the campus must be conducted through the HPS. The transport of liquid scintillation vials for counting must abide by the relevant URSR.

6. All personnel who work with or in the vicinity of radioactive materials under my authorization, including animal caretakers and students, will be trained in accordance with the URSR. Other non radiation workers will receive training from me commensurate with their exposure potential.

7. All personnel will wear dosimeters if required by the URSR. All personnel using tritium or radioiodine will have urine or thyroid monitoring when required by the URSR. Pregnant workers will be informed of the relevant regulations that pertain to their pregnancy.

8. Any procedure which may result in the production of airborne radioactivity (e.g., gas, aerosol or dust) must be performed within a fume hood or other facility approved by HPS.

Signature: _____ Date: _____

University Job Classification: _____

Department: _____

HPS/URSC

(Do Not Fill This Section)

This application has been reviewed and is recommended for URSC approval for the specified duration, subject to the conditions given below:

Duration of Authorization:

- ❑ To expire with current authorization.
- ❑ 3 Years.
- ❑ Other: _____

Comments: _____

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Radiation Safety Officer: _____ Date: _____

URSC approval is granted in accordance with the information contained in this application, with attachments, and any conditions given below:

URSC Members: _____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

Comments: _____

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