

APPLICATION FOR NON-HUMAN USE OF RADIOACTIVE MATERIALS

Date of Application: _____

New application/reapplication (complete all sections & attach "Statement of Prior Training and Experience" Form 6.1)

Amendment to authorization # _____ (complete sections 1, 11 & all sections applicable to the amendment)

Additional sheets are attached.

1. APPLICANT INFORMATION

Name: _____ Employee #: _____

UC Title: Assist. Professor Assoc. Professor Professor

Research Associate Research Scientist Other _____

Institution: UC CCHMC SHC Other _____ Dept: _____

Office Location: _____ ML: _____ Phone: _____ E-mail: _____

2. RADIONUCLIDE(S) TO BE USED

| Radionuclide | max. order* (mCi) | max. poss. (mCi) | Chemical form | Physical form** |
|--------------|----------------------|---------------------|---------------|-----------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

*"max.order" = the maximum activity for any individual order (all compounds combined) on an order form.

**Enter "US-LIQUID, US-SOLID, or US-GAS" for unsealed sources, "SS" for sealed (i.e., encapsulated) sources

3. PURPOSE OF USE

Check all appropriate

| | |
|---|--|
| ✓ | PURPOSE OF USE |
| | Research and development excluding use in animals |
| | Research and development including use in animals |
| | Clinical in-vitro testing |
| | Teaching and training |
| | Use of irradiator for irradiation of samples approved for that irradiator |
| | Use of sealed source as standard for liquid scintillation or gamma counter |
| | (Other as noted) |

4. PROCEDURES TO BE USED

Indicate use of common procedures, as listed below, by checking the box preceding the descriptor. No further explanation is necessary unless a deviation from the standard protocol is planned.

DNA/RNA labeling: nick translation nucleotide kinase primer extension 3'end PCR

Blot analysis: northern southern western southwestern

ATPase assay autophosphorylation assay binding assay CAT assay *in vitro* kinase assay

primer extension assay EMSA RIA cell/tissue labeling DNA/RNA sequencing

DNase I hypertensive mapping *in situ* analysis *in vitro* replication iodination

library screenings by colony/plaque hybridization P13kinase SSCP ³H ouabain binding

Describe any other procedures; include max. activity/experiment and provide sufficient details for the RSC and RSO to determine safety issues. Attach a separate page if necessary (see attached).

5. LOCATIONS OF USE

- (1) List room numbers for all areas where radioactive material will be used or stored under this authorization. If a room addition, list only the rooms being added.
- (2) Indicate the type(s) of use(s) by checking the appropriate column. (Room deletions use Form 24)

| LOCATION | | TYPE(S) OF USE (✓) | | | | |
|----------|--------|--------------------|---------|----------|----------|---------|
| Building | Room # | Experiment | Storage | Counting | Darkroom | Other * |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

*Other: iodination or _____

6. SAFETY PRECAUTIONS

(Check all appropriate)

Methods to minimize external radiation exposure:

Shielding: lead for (radionuclide(s) _____) plastic for (radionuclide(s) _____)
 remote manipulators other _____

Methods to minimize contamination:

PPE, such as gloves and lab coats Dedicated work area(s) with absorbent paper
 Appropriate monitoring after each use (i.e., survey meter for mid/high energy betas and gammas; a wipe test for ³H or low energy betas)

6. SAFETY PRECAUTIONS

(continued)

Indicate whether any of the conditions listed below may occur during your experimental procedures. For any "Yes" answers, indicate additional safety precautions to be used.

| | Within Procedure | | Radiolabeled Compound | |
|-----------------------|------------------|----|-----------------------|----|
| | Yes | No | Yes | No |
| Gas, vapor or aerosol | | | | |
| Powder or dust | | | | |
| Flammable liquid | | | | |
| Chemical hazards | | | | |
| Infectious biohazard | | | | |
| Pressure/vacuum | | | | |
| High temperature | | | | |

Additional safety precautions: _____

7. WASTE PROCEDURES

- I will use the waste procedures outlined in the Radiation Protection Procedures (AU) Manual.
- I request authorization for the following additional and/or modifications to waste procedure(s) listed in the Radiation Protection Procedures (AU) Manual: _____

8. EMERGENCY PROCEDURES

- I will use and post standard program procedures (RS Form 34).
- I will use and post non-standard procedures (see attached).

9. RADIATION DETECTION INSTRUMENT(S)

Analytical equipment: I will share another AU's equipment. No Yes* : _____

* If Yes, circle the "Make" entry for equipment being shared.

AU Name

| Make | Model | Serial # | COUNTER TYPE | | |
|------|-------|----------|--------------------------|--------------------------|--------------|
| | | | LSC | GAMMA | Other (list) |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | |

Survey Meter: I will share another AU's equipment. No Yes* : _____

* If Yes, circle the "Make" entry for equipment being shared.

AU Name

| Make | Model | Serial # | PROBE TYPE | | | | |
|------|-------|----------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|
| | | | GM | | | NaI | Other (list) |
| | | | Pancake | End-window | Side window "hotdog" | | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

