#### How to Create an Appendix H and Attach to an IRB Protocol

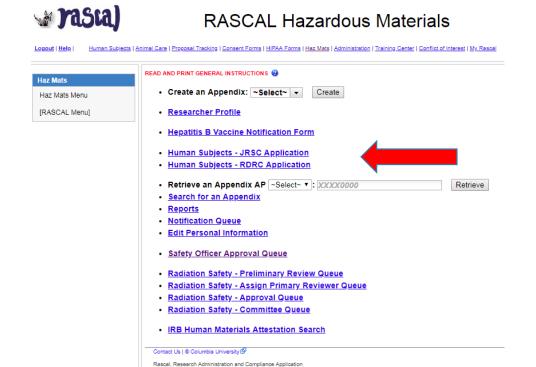
This guide outlines the steps to create an Appendix H for studies involving the research use of radiation that must be submitted to the Joint Radiation Safety Committee (JRSC) for approval. The "<u>Guidelines for the Use of Radiation in Research Studies Involving Human Subjects</u>" is an important companion to this guide. Go to: (<a href="https://research.columbia.edu/system/files/EHS/Policies/JRSCGuidelines.pdf">https://research.columbia.edu/system/files/EHS/Policies/JRSCGuidelines.pdf</a>).

This guide does not address studies that must be submitted to the Radioactive Drug Research Committee (RDRC). For guidance on those studies, please see the "<u>Guidelines for Conducting Research Studies under the Auspices of The Columbia University Radioactive Drug Research Committee</u>." Go to: (https://research.columbia.edu/system/files/EHS/Policies/RDRCGuidelines.pdf).

- 1. Go to RASCAL (www.rascal.columbia.edu) and login with your UNI and password.
- 2. Select HazMats from the top menu bar.



3. To start a new Appendix H, click on "Human Subjects - JRSC Application"

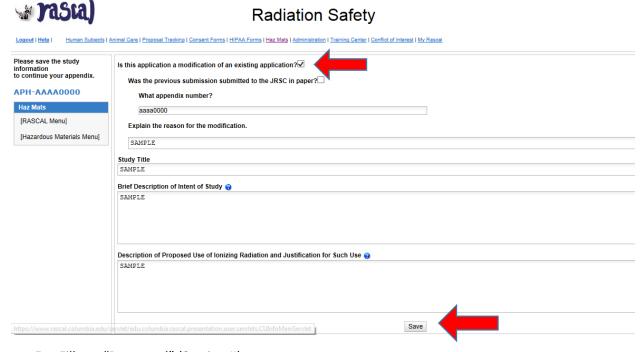


<u>Tips</u>: There are multiple sections to this Appendix. Fill out in order and always save when section is completed. Each page must be filled in its entirety to save. If cannot fill out Appendix H in one session, fill out remaining section you are working on, and return back to the Appendix later to complete the remaining sections.

- 4. Fill out the "Study Information" (Section I):
  - Add IRB Protocol number before the study title
  - If updating a previously approved Appendix, be sure to check the box and include the reference to the previous Appendix
  - The following changes require a modification submission:
    - Change in number of subjects
    - o Change in study population
    - Change in type, number and/or frequency of radiographic or nuclear medicine studies
    - o Change in Principal Investigator
    - Change in Clinical Authorized User (if applicable)
    - Change in Physician Liaison (if applicable)

<u>Tips</u>: To submit a modification go to the previously approved Appendix, click on "Copy Appendix". A new Appendix H with a new number will be created with all the information prepopulated from the previously approved one.

- Complete the information in each section
- Click Save
- Criteria for Administrative Review go to: (<a href="https://research.columbia.edu/sites/default/files/content/EHS/Rad%20Safety/CriteriaForAdministrative">https://research.columbia.edu/sites/default/files/content/EHS/Rad%20Safety/CriteriaForAdministrative</a> eReview.pdf)



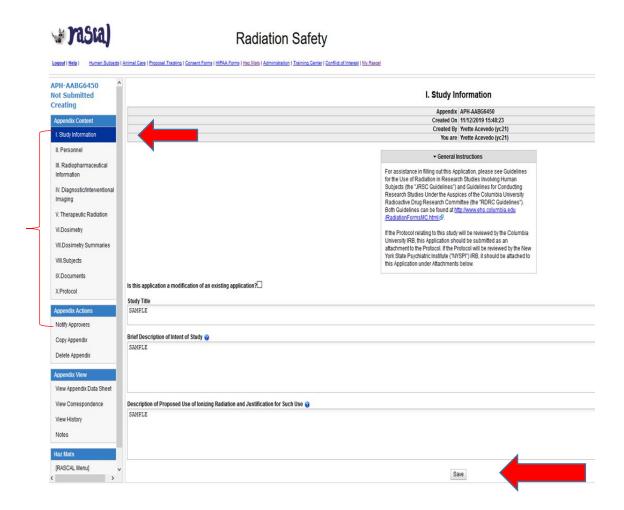
- 5. Fill out "Personnel" (Section II).
  - Principal Investigator: required for all studies
  - Clinical Authorized User: required if radiopharmaceuticals are included in the study
  - Physician Liaison: required if the Principal Investigator is not a Physician
  - Click Save
- Complete the remaining sections (Section III through IX), as described below:

#### **Columbia Dose Calculator**

Whenever possible, it is recommended to use the Columbia Dose Calculator <a href="http://radio-sea.cpmc.columbia.edu:5025/#/">http://radio-sea.cpmc.columbia.edu:5025/#/</a> to provide the dosimetry information for the Appendix. The Calculator will output a PDF with all of the information needed for the entries listed below, which can then be attached to the Appendix. (At present, the Calculator can only be accessed while on campus or via VPN connection).

#### **Dose calculations**

If assistance is needed to fill out the dosimetry tables, forward a request via email to <u>irsc@columbia.edu</u> for submission of a JRSC Application (Appendix H) or <u>rdrc@columbia.edu</u> for submission of a RDRC Application (Appendix H) along with a copy of the Sponsors Protocol and a brief explanation of what the study involves.



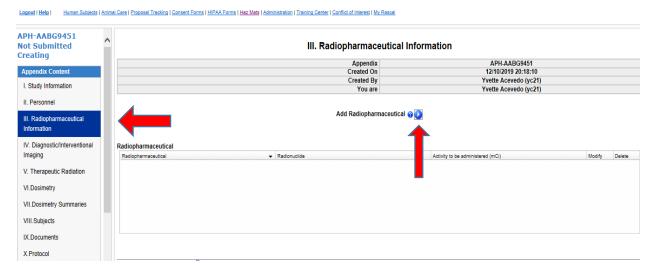
#### III. Radiopharmaceutical Information:

Complete this section only if your study uses radiopharmaceuticals for research. Do not include procedures ordered as routine standard of care. However, standard of care procedures that would not have been ordered except as a requirement of the research protocol should be included.

In the table, you should identify for each radiopharmaceutical used in the study, the name of the pharmaceutical, the radionuclide (e.g., F-18, Tc-99m, etc.) and the activity to be administered *per procedure* to the subject.



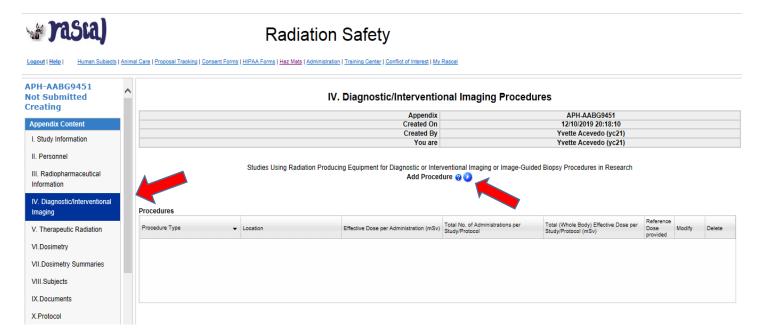
#### Radiation Safety



#### IV. Diagnostic/Interventional Imaging Procedures:

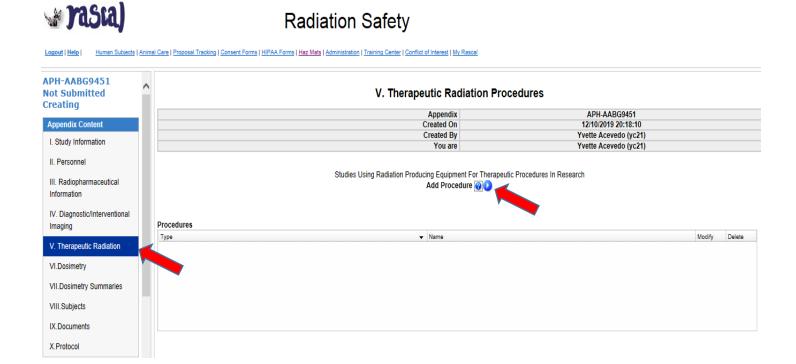
Complete this section for each procedure to be used, if your study uses radiation producing equipment for diagnostic or interventional imaging or image-guided biopsy procedures in research (i.e., radiography, fluoroscopy, CT, Bone Densitometry (DXA), CT Biopsy, etc.). You should include only uses that go beyond that established for the applicable standard of care.

For each procedure, enter the Effective Dose per Administration (from the Dose Calculator or other reference), the total number of administrations of that type in the study, and include the reference for the dose information (if the Columbia Dose Calculator is used, you may simply list "Columbia Dose Calculator")



#### V. Therapeutic Radiation Procedures:

Complete this section for each procedure to be used, if your study uses radiation producing equipment for therapeutic procedures in research (i.e., EBRT, HDRR brachytherapy, proton beam therapy, etc.). You should include only uses that go beyond that established for the applicable standard of care.



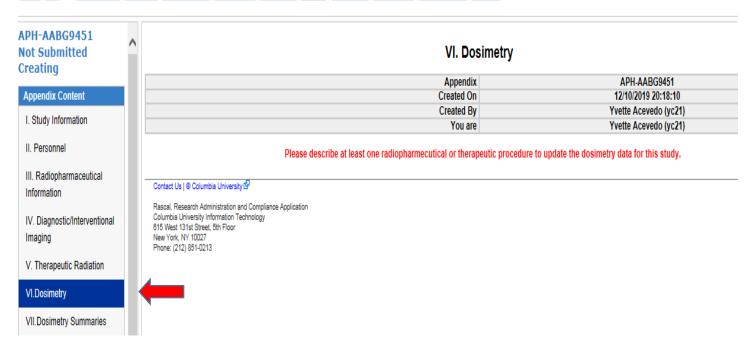
#### VI. Dosimetry:

This section records the organ doses and the effective dose for radiopharmaceuticals and/or therapeutic radiation (for diagnostic and interventional imaging, the necessary dose is recorded in Section IV).



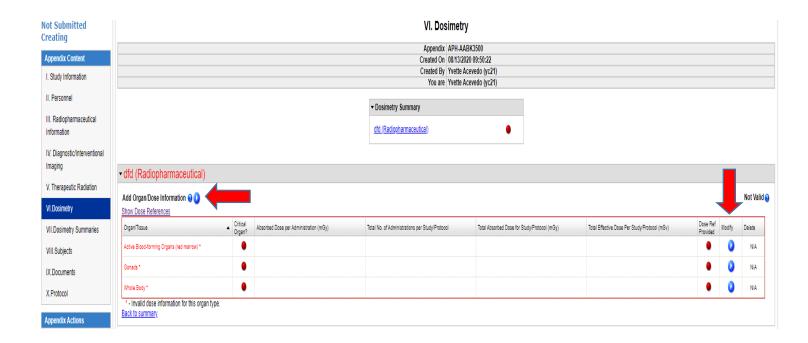
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For each radiopharmaceutical, the organ dose table must be completed. At a minimum, the dose to Active Blood-forming Organs (red marrow), the Gonads, and the Critical Organ (organ or tissue receiving the highest dose) must be included (additional organ doses can be optionally recorded). The Whole Body (effective) dose must also be entered.

For therapeutic radiation procedures, the appropriate organ doses should be added to the dose table.



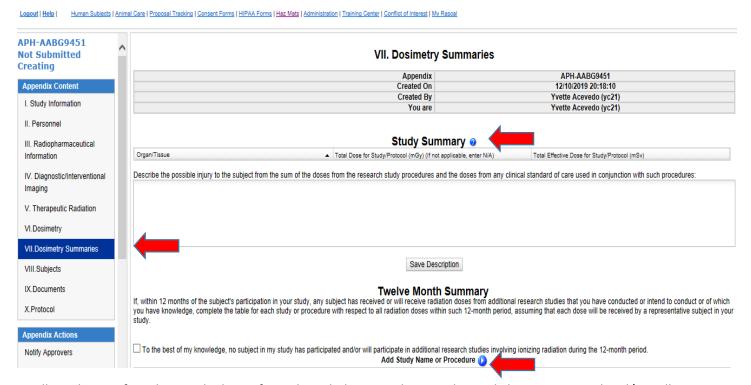
#### **VII. Dosimetry Summaries:**

This section will provide the summation of the doses recorded in the previous sections. Confirm that dose totals are correct.

You should add a description of any possible injury to the subject from the sum of the doses from the study procedures <u>and</u> the doses from any clinical standard of care used in conjunction with such procedures.



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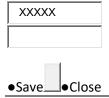
Finally, either confirm that, to the best of your knowledge, no subject in the study has participated and/or will participate in additional research studies involving ionizing radiation during the 12-month period, or add the information for any study in which subjects may be co-enrolled:

# Study Name or Procedure: XXXXXXXX

### IRB Protocol Number (if available):

XXXXXXX

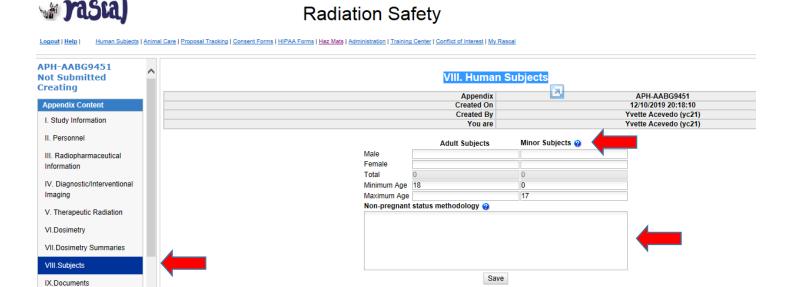
Total Effective Dose from Prior or Future Research Studies within 12 Months (mSv):



#### **VIII. Human Subjects:**

Provide the demographics of the study subjects and target enrollment for the study.

- 1. **Minor Subjects**: Subjects should be at least 18 years of age and legally competent unless there is sufficient justification for the use of minors in the study. All protocols that involve Minors go to a Full Committee Meeting whether a New Submission or a Modification.
- 2. **Non-pregnant status methodology**: The absence of pregnancy should be confirmed by a urine or other pregnancy test prior to any use of radiation or radioactive materials.



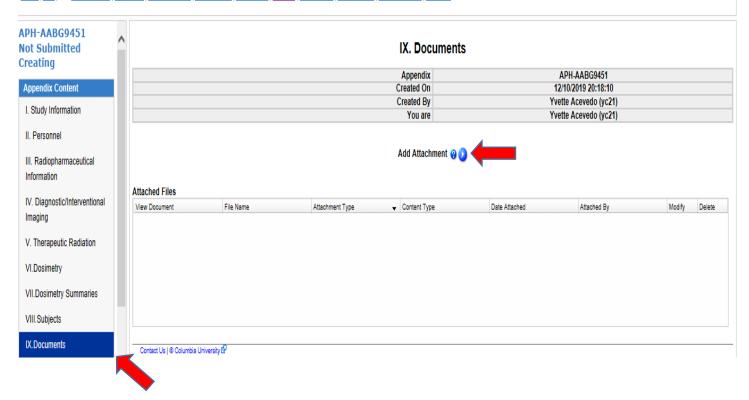
#### **IX. Documents:** You should attach the following documents to this Application:

- All reference documents listed in the tables and/or the output from the Columbia Dose Calculator
- Sponsor protocol and informed consent form (if applicable)
- Email correspondence (if any) between the Principal Investigator, Study Coordinator and JRSC/RDRC reviewer
- Written confirmation by the Principal Investigator if procedure is Standard of Care (if applicable)
- Principal Investigator's CV
- Clinical Authorized User's CV (if applicable)



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**X. Protocol:** Click Notify Approver. Click "Submit". Navigate to your IRB Protocol to attach the Appendix H. (In order for the JRSC review process to begin submit the IRB Protocol)



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