BIOSPECIMEN RESEARCH DATABASE

User's Guide

NATIONAL® CANCER INSTITUTE

Center for Biomedical Informatics
and Information Technology

October 15, 2008

TABLE OF CONTENTS

About This Guide

This section introduces you to the *Biospecimen Research Database User's Guide*. It includes the following topics:

Purpose

The Biospecimen Research Database (BRD) is a product of the Biospecimen Research Network. This guide explains how to search and curate the BRD.

Audience

Typical User

This guide is designed for:

- Researchers and clinicians who want to search this publicly available database to retrieve information about research papers and studies, and
- Curators who add information to the database and update that information.

Prerequisites

To get the most out of this guide, you should have:

- A general understanding that pre-analytical variations can impact a biospecimen's molecular profile, and
- Familiarity working with literature databases such as PubMed.

Topics Covered

This brief overview explains what you will find in each chapter.

- *Chapter 1, Searching the Biospecimen Research Database,* on page 5 explains three methods for searching the database (Quick, Simple, and Advanced) and how to interpret search results.
- *Chapter 2, Curating for the Biospecimen Research Database,* on page 17 explains how to add scientific papers to the database as well as add and edit metadata that make the papers easier for researchers to find.

Additional References

For more information about the Biospecimen Research Database, see the following reference:

- Biospecimen Research Network web page: http://biospecimens.cancer.gov/science/brn/

Text Conventions Used

This section explains conventions used in this guide. The various typefaces represent interface components, keyboard shortcuts, toolbar buttons, dialog box options, and text that you type.

Convention	*Description*	*Example*
Bold	Highlights names of option buttons, check boxes, drop-down menus, menu commands, command buttons, or icons.	Click **Search**.
URL	Indicates a Web address.	http://domain.com
text in SMALL CAPS	Indicates a keyboard shortcut.	Press ENTER.
text in SMALL CAPS + text in SMALL CAPS	Indicates keys that are pressed simultaneously.	Press SHIFT + CTRL.
Italics	Highlights references to other documents, sections, figures, and tables.	See *Figure 4.5*.
Italic boldface monospaced type	Represents text that you type.	In the **New Subset** text box, enter ***Proprietary Proteins.***
Note:	Highlights information of particular importance	**Note:** This concept is used throughout the document.
{ }	Surrounds replaceable items.	Replace {last name, first name} with the Principal Investigator's name.

Credits and Resources

The following people contributed to the development of this document.

Biospecimen Research Database Development and Management Teams			
Development	***Documentation and Quality Assurance***	***Project and Product Management***	***Curation***
Amit Srivastava [5]	***Documentation***	Andrew Breychak [8]	Andrea Kelly [6]
Kalpesh Patel [5]	Carolyn Kelley Klinger [2]	Ian Fore [1]	Kelly Engel[7]
	Quality Assurance	Helen Moore[3]	
	Jyothsna Chilukuri[4]	Mark Lim[3]	
[1] NCI Center for Bioinformatics and Information Technology (CBIIT)	[2] Lockheed Martin Management System Designers	[3] Office of Biorepositories and Biospecimen Research (OBBR)	[4] Science Applications International Corporation (SAIC)
[5] Ekagra Software	[6] Rose Li Associates	[7] Preferred Staffing Group	[8] Sapient

Contacts and Support	
NCICB Application Support	http://ncicb.nci.nih.gov/NCICB/support Telephone: 301-451-4384 Toll free: 888-478-4423

CHAPTER

1

SEARCHING THE BIOSPECIMEN RESEARCH DATABASE

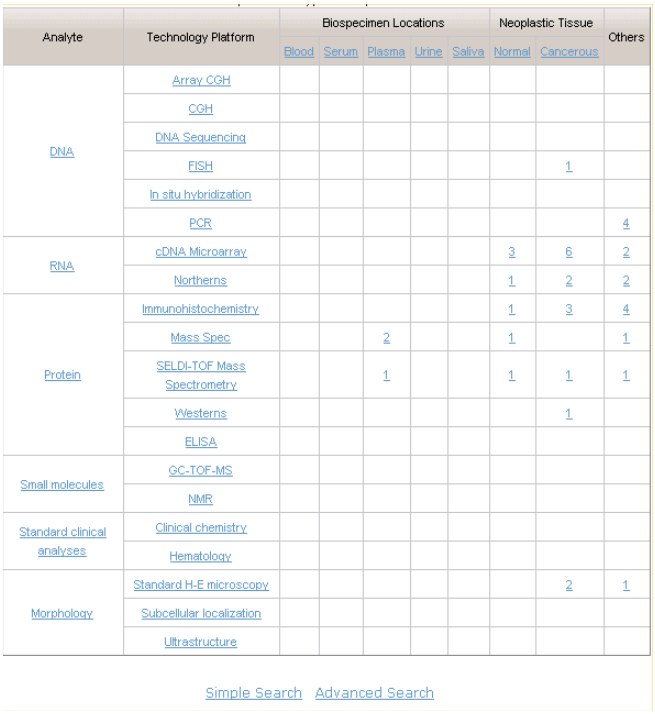
This section introduces you to the procedures for searching the Biospecimen Research Database.

Topics in this section include:

Search Overview

You can search the Biospecimen Research Database to find research studies and papers that match criteria you specify. You can search the Biospecimen Research Database in the following ways.

- A Quick Search presents common search criteria in a table format with links to search results. This is the default search method.



Analyte	Technology Platform	Biospecimen Locations					Neoplastic Tissue		Others
		Blood	Serum	Plasma	Urine	Saliva	Normal	Cancerous	
DNA	Array CGH								
	CGH								
	DNA Sequencing								
	FISH							1	
	In situ hybridization								
	PCR								4
RNA	cDNA Microarray						3	6	2
	Northerns						1	2	2
Protein	Immunohistochemistry						1	3	4
	Mass Spec			2			1		1
	SELDI-TOF Mass Spectrometry			1			1	1	1
	Westerns							1	
	ELISA								
Small molecules	GC-TOF-MS								
	NMR								
Standard clinical analyses	Clinical chemistry								
	Hematology								
Morphology	Standard H-E microscopy							2	1
	Subcellular localization								
	Ultrastructure								

Simple Search Advanced Search

Figure 1.1 Quick Search page

- A Simple Search presents common search criteria in a query format. The following is an example of the Simple Search page.

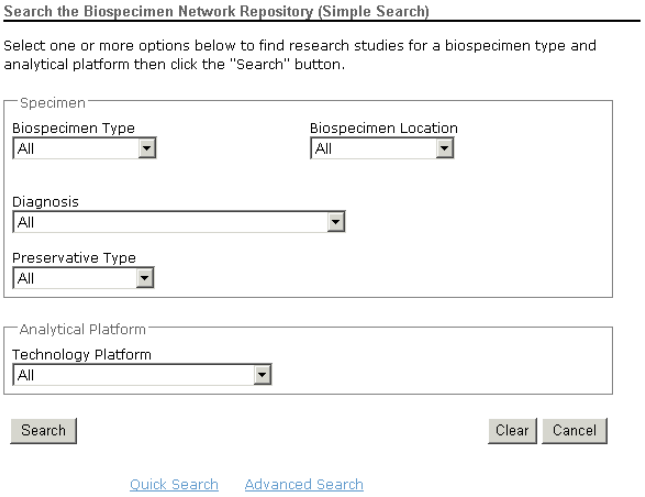


Figure 1.2 Simple Search page

- An Advanced Search includes all possible search criteria in a query format.

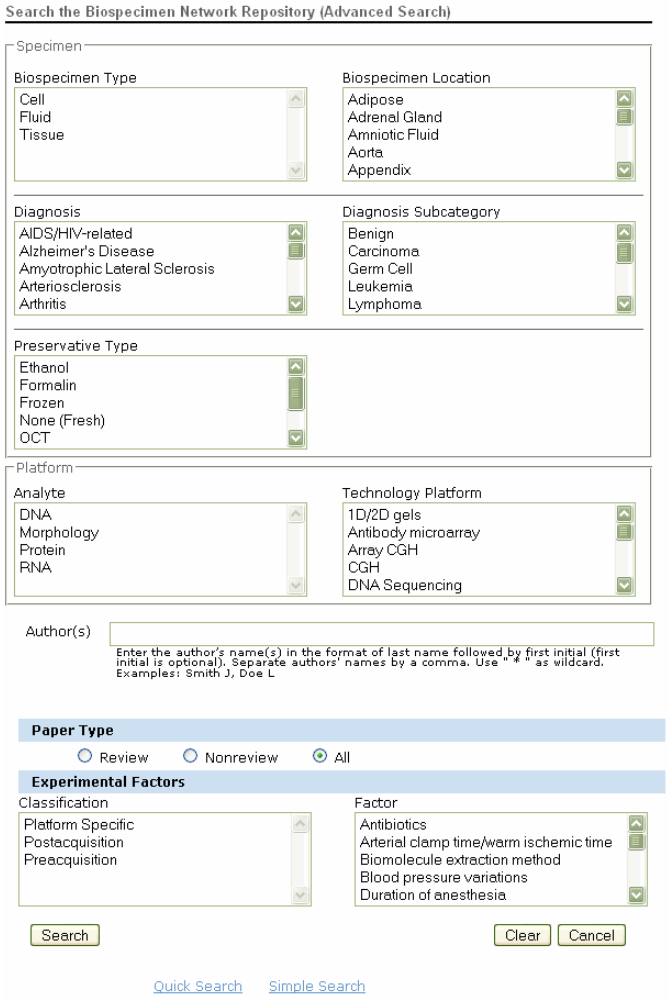


Figure 1.3 Advanced Search page

Note: You do not need to log in or have an account to search the Biospecimen Research Database.

Conducting a Quick Search

A Quick Search provides easy access to specimen research data on some commonly used specimen types and analytical platforms. To search the Biospecimen Research Database for more specimen types and analytical platforms than presented in a Quick Search, conduct a Simple or an Advanced Search by clicking the respective link under the Quick Search display.

See *Figure 1.4* for an illustration of the search options below the Quick Search display.

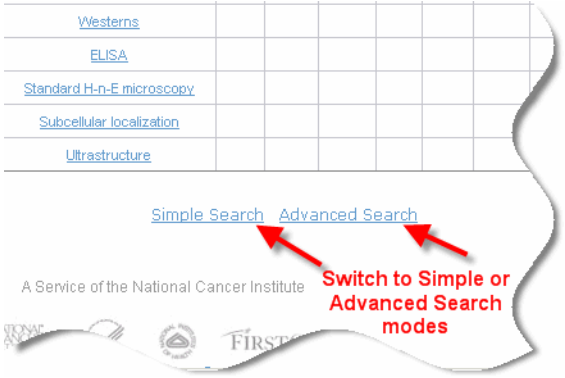


Figure 1.4 Search options below the Quick Search display

To conduct a Quick Search

1. At the top of the Biospecimen Research Database home page (http://brd.nci.nih.gov/BRN/search.seam), click the **Search** link. The search page corresponding to the last database search you conducted appears.

   Note: If you do not see the Quick Search page table, click the **Quick Search** link at the bottom of the page.

2. To search the database, click a link in the table.

Click a link in the...	***To see...***
Analyte column	All research studies in the database that involve that analyte
Technology Platform column	All research studies in the database that involve both that technology platform and the analyte in the same row
Biospecimen Locations columns	All research studies in the database that involve that biospecimen location
Neoplastic Tissue columns	All research studies in the database that involve the specified type of neoplastic tissue
Others column	All research studies in the database that do not fit into the categories mentioned in this table

Table 1.1 Understanding the Quick Search criteria

Click a link in the...	*To see...*
Body of the table	All research studies in the database that involve the unique combination of analyte, technology platform, biospecimen location, and neoplastic tissue, as applicable to the table cell you selected. The numerical link corresponds to the number of research studies that fulfill the search criteria combination. **Note:** The numerical links do not add up to the total number of studies in the database. Each cell represents only the number of studies that meet the specified search criteria in this table. Many other search criteria can be accessed by conducting a Simple or an Advanced Search.

Table 1.1 Understanding the Quick Search criteria

3. See *Interpreting Search Results* for more information.

Conducting a Simple Search

Using a Simple Search, you can quickly retrieve results from the Biospecimen Research Database using some common search criteria.

Note: When specifying search criteria in the Biospecimen Research Database, there are no required fields. You can add as much detail or only those criteria that you consider essential to the search.

To conduct a Simple Search

1. At the top of the Biospecimen Research Database home page (http://brd.nci.nih.gov/BRN/search.seam), click the **Search** link. The search page corresponding to the last search you conducted appears.
2. If you are not already on the Simple Search page, click the **Simple Search** link at the bottom of the page.
3. Select one or more fields from the lists. The more fields you select, the more you narrow your search; studies that appear in the search results match all of the criteria you select. The following table describes the available search criteria:

Basic Search Criteria	*Description*
Specimen	
Biospecimen Type	Select the type of the biospecimen (Tissue/Fluid/Cell).
Biospecimen Location	Select the bodily location from which the biospecimen was obtained.
Diagnosis	Select the term that identifies the nature of a disease or condition associated with the biospecimen.
Preservative Type	Select the substances added to the biospecimen, or other treatment to protect it from chemical change or microbial action.
Analytical Platform	

Table 1.1 Simple Search parameters and their descriptions

Basic Search Criteria	Description
Platform	Select the specific technology used to analyze the biospecimen.

Table 1.1 Simple Search parameters and their descriptions

4. Click the **Search** button.

   Studies that match all of the criteria you selected appear on the Search Results page. See *Interpreting Search Results* for more information.

Conducting an Advanced Search

An Advanced Search of the Biospecimen Research Database provides you with more control over search criteria and results than a Quick or Simple Search.

Note: When specifying search criteria in the Biospecimen Research Database, there are no required fields. You can add as much detail or only those criteria that you consider essential to the search.

To conduct an Advanced Search

1. At the top of the Biospecimen Research Database home page (http://brd.nci.nih.gov/BRN/search.seam), click the **Search** link. The search page corresponding to the last search you conducted appears.
2. Click the **Advanced Search** link at the bottom of the page. The Advanced Search page appears.
3. Select search criteria by clicking fields in the scroll boxes.

   To select multiple fields in the same scroll box, click the first field, press and hold the CTRL key, and then click additional fields. The fields you select are highlighted and your search results contain all studies matching any of the fields. For example, if you select both the Cell and Fluid biospecimen types, your search results contain all studies that concern cells and fluid.

   When you select fields from different search scroll boxes, you narrow your search. For example, if you select the Cell biospecimen type and the Kidney biospecimen location, your search results include studies that concern both cells and kidneys.

   Note: Note that the selections you make in the scroll boxes on the left determine the selections in the scroll boxes on the right. For example, selecting the Biospecimen Type "Fluid" makes "Blood" an available Biospecimen Location.

The following table describes the Advanced Search criteria

Advanced Search Criteria	***Description***
Specimen	
Biospecimen Type	Select the type of biospecimen (Tissue/Fluid/Cell).
Biospecimen Location	Select the bodily location from which the biospecimen was obtained.
Diagnosis	Select the term that identifies the nature of a disease or condition associated with the biospecimen.
Diagnosis Subcategory	Select the diagnosis subdivision that differentiates the disease within the larger category. **Note:** Diagnosis Subcategory is only available for the diagnosis "neoplastic."
Preservative Type	Select the substances added to the biospecimen, or other treatment to protect it from chemical change or microbial action.
Platform	
Analyte	Select the molecular analyte (DNA, RNA, Protein) derived from the biospecimen, or "Morphology" for microscopic analysis.
Technology Platform	Select the specific technology used to analyze the biospecimen.
Author(s)	Enter the author's name(s) in the format of last name followed by first initial (first initial is optional). Separate authors' names by a comma. Use " * " as wildcard. Examples: Smith J, Doe L
Paper Type	Select among the paper type options: **Review**, **Nonreview**, or **All**. If you do not select any search criteria prior to clicking the Search button, the search uses **Paper Type: All** as its default search criterion.
Experimental Factors	
Classification	The type of biospecimen handling variable that is the subject of the study (pre-acquisition, post-acquisition, or platform specific)
Factor	The specific experimental factor that is the subject of the study (e.g., the post-acquisition variable, "type of fixative," is a specific experimental factor in a study that examines the effects of different types of tissue fixatives on molecular analysis).

Table 1.1 Advanced search criteria and their descriptions

4. Click the **Search** button.

   Studies matching your search criteria appear on the Search Results page. See *Interpreting Search Results* for more information.

Interpreting Search Results

Searches result in a summary of each paper matching your search criteria on the Search Results page. If you clicked the **Search** button having defined no search criteria, all papers in the database appear on the page.

Each study summary includes the paper's authors, information about the paper, and, if relevant, a link to the paper's listing in PubMed. The search criteria you selected appear under the Current Search Criteria heading at the bottom of the page.

On the Search Results page, you can:

- View a summary of all of the papers matching your search criteria.
- Click the **author(s) hyperlink** to view detailed information about the paper stored in the Biospecimen Research Database. For more information, see *Viewing Paper Details: Paper and Study Details Page*.
- Click the **PubMed icon** to view that paper's listing in PubMed in a new browser window.
- Click **Modify Search** to return to the search page and search criteria you last used.

See the available actions on the Search Results page in *Figure 1.5*.

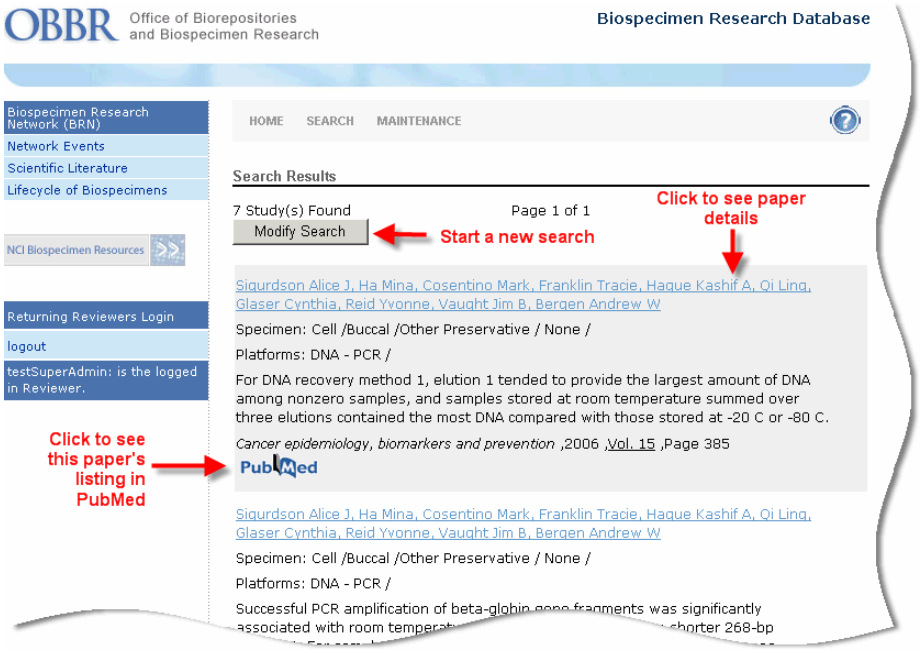


Figure 1.5 Actions on the Search Results page

Viewing Paper Details: Paper and Study Details Page

Clicking the author(s) link on the Search Results page opens the Paper and Study Details page, where you can view a paper's entire record.

Each paper includes one or more associated studies. Studies are defined as the set(s) of experiments within a paper that vary specific experimental factors or use specific experimental platforms for analysis. For example, a paper that examines the effect of a biospecimen handling variable on RNA and protein analysis may have two studies in the database, one study describing the results of RNA analysis and one describing the results of protein mass spectroscopy analysis.

Additional study details are available on the Study Details page.

On the Paper and Study Details page, you can:

- View complete bibliographic information about the paper
- Click the **PubMed icon** to view that paper's listing in PubMed in a new browser window
- View whether the paper is a Review or Nonreview paper
- View the purpose of the paper
- View the conclusion of the paper
- Summary of the paper's associated studies
- Click the **Detail** link to the left of a study summary to view additional study details (for more information, see *Viewing Study Details*)

See the available actions on the Paper and Study Details page in *Figure 1.6*.

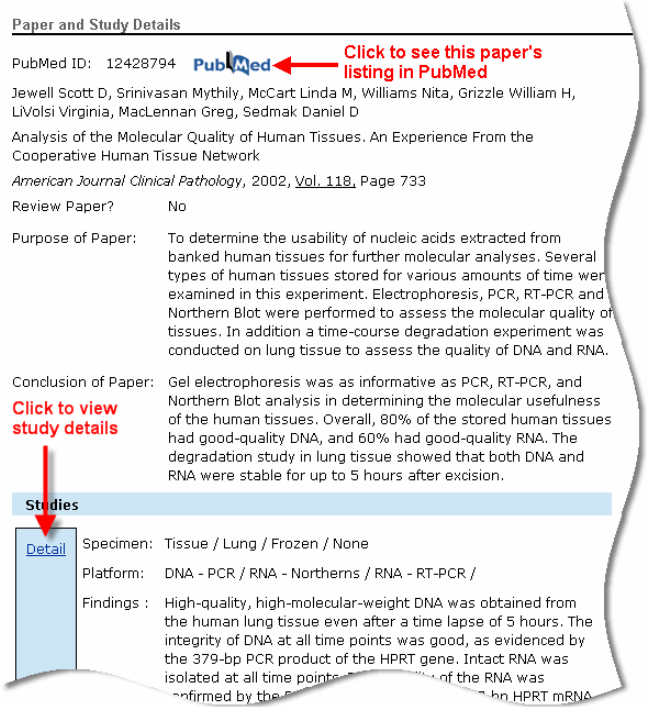


Figure 1.6 Action on the Paper and Study Details page

Viewing Study Details

Clicking the **Detail** link to the left of a study summary on the Paper and Study Details opens the Study Details page, where you can view the most detailed information about a study that is available in the Biospecimen Research Database.

On the Study Details page, you can:

- View complete bibliographic information about a paper
- View whether the paper is a Review or Nonreview paper
- Click the **PubMed icon** to view the paper's listing in PubMed in a new browser window

See *Figure 1.7* for an illustration of the Study Details page.

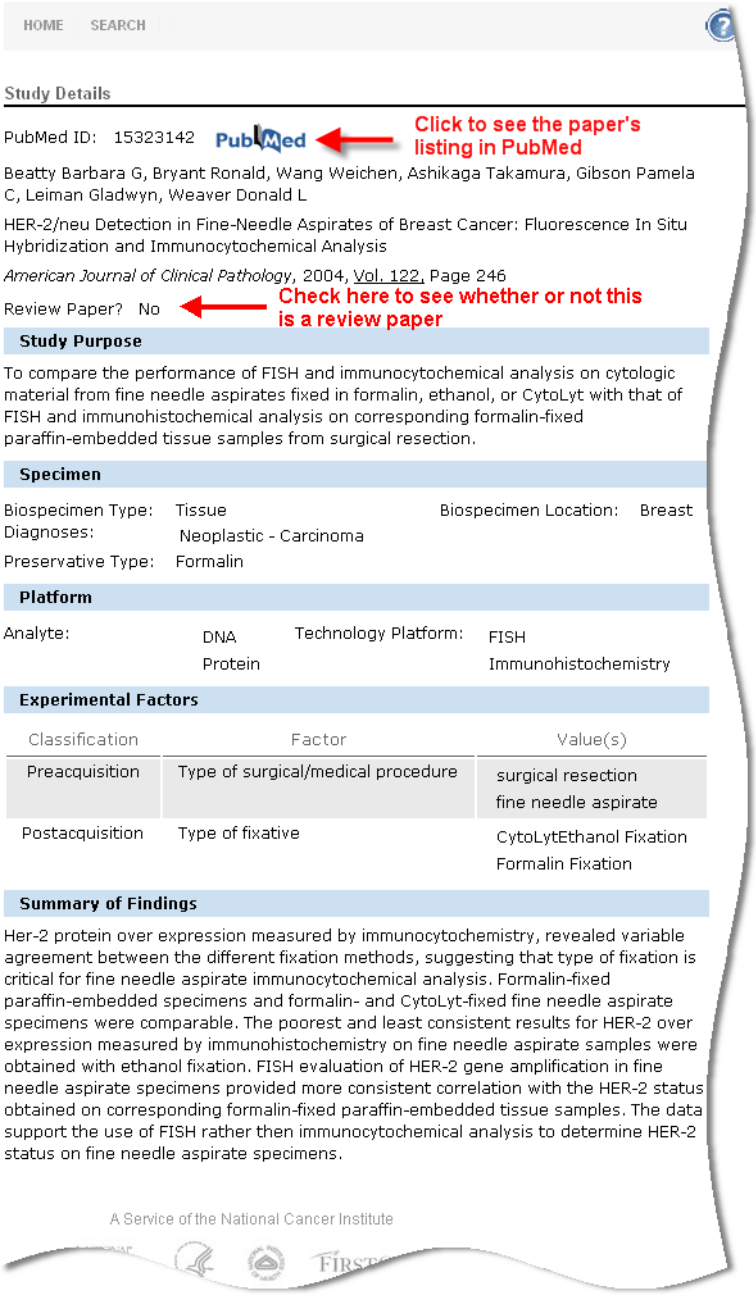


Figure 1.7 Study Details page

The following information appears on the Study Details page:

- Study purpose
- Information about Specimen type and location
- Platform type studied
- Analyte studied
- Experimental Factors
- Study Findings

CHAPTER 2

CURATING FOR THE BIOSPECIMEN RESEARCH DATABASE

This section explains how to curate papers into the Biospecimen Research Database.

Topics in this section include:

Logging in as a Curator

To log in as a curator to the Biospecimen Research Database

1. Go to the Biospecimen Research Database home page, http://brd.nci.nih.gov/BRN/brnHome.seam.
2. Click the **login** prompt in the left navigation bar. The Maintenance Login page appears.

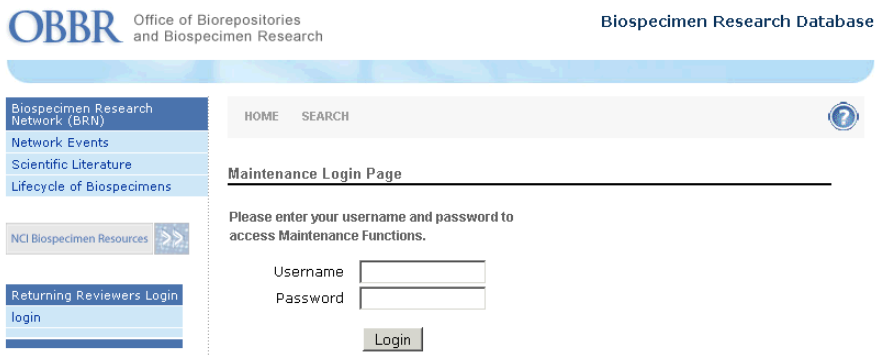


Figure 2.1 Maintenance Login page

3. Enter your username and password and then click **Login**. The BRN System Code Maintenance page appears.

Figure 2.2 BRN System Code Maintenance page

Note: For username and password assignments or any problems with logging in, contact Ian Fore (forei@mail.nih.gov).

On this page, curators can access all of the administrative and maintenance functions of the Biospecimen Research Database application that they are authorized to use.

Curation Tips

- Curators should read the “materials and methods” section of a paper as part of a pre-screening strategy to see if the paper sufficiently describes the various ways that biospecimens are collected, processed, and stored.
- Curators should focus on reporting the hypotheses, methods, and results of a paper, as opposed to evaluating the paper.
- Only studies that pertain to biospecimen science should be included in the database.
- Curators must confirm the correct spelling of their entries.

Adding and Editing Published Papers

This section contains the following topics:

Adding Published Papers

To add published papers

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator*.
2. Click **Add Published Paper**. The Add/Edit Published Paper page appears.

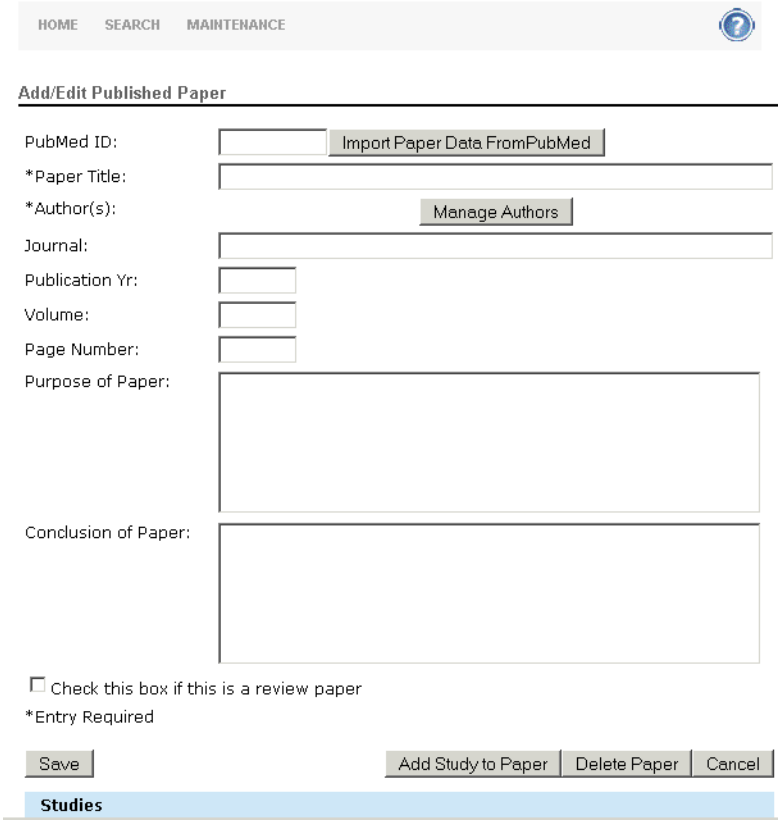


Figure 2.3 Add/Edit Published Paper page

3. If available, add the paper's PubMed ID and then click the **Import Paper Data from PubMed** button. Information from PubMed automatically populates the following fields: paper title, author(s), journal name, publication year, volume, and page number.
4. If PubMed is not available, add information about the published paper, i.e., Journal, Publication Year, Volume, and Page Number.

   Note: Use the standard PubMed abbreviation for Journal. Page Number should be the page on which the article begins; do not enter the paper's page range.
5. In the Paper Title field, enter the paper's full title.
6. Click **Manage Authors**. The Select Paper Authors page appears.

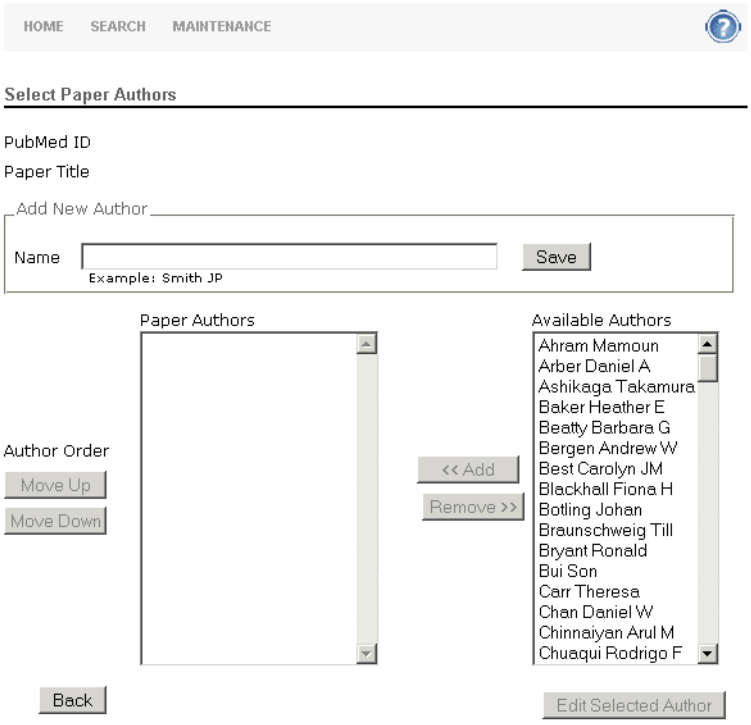


Figure 2.4 Select Paper Authors page

   a. Search for the author's name by scrolling the Available Authors list. If the author appears in that list, select the name and click **<<Add**. The author's name moves to the Paper Authors list.

   b. If a paper author does not yet appear in the Available Authors list, enter the author's name in the Add New Author area of the page. Click **Save**. The author's name appears in the Paper Authors list.

   c. Click **Back** to return to the Add/Edit Published Paper page.
7. After reviewing the paper, complete the Purpose of Paper and Conclusion of Paper fields. Since this information may not be obvious from the title or abstract, provide as much detail into these fields as possible.
8. If the paper is a review paper, check the box at the bottom of the page.
9. Click **Save**. A confirmation message appears asking if you are sure you want to add or update this paper.

10. Click **OK**. The message `createPaperSuccess` appears at the top of the page.
11. Add associated studies to the paper by clicking **Add Study to Paper**. See *Managing Study Entries* on page 27 for more information.

Editing Published Paper Entries

To edit published paper entries

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Search for the published paper you want to edit. For more information on searching the database, see *Search Overview* on page 5. The Search Results page appears.
3. Select the paper that you want to edit. If you have the privilege to edit the paper, the Paper and Study Details page appears with an Edit button in the upper right corner (*Figure 2.5*).

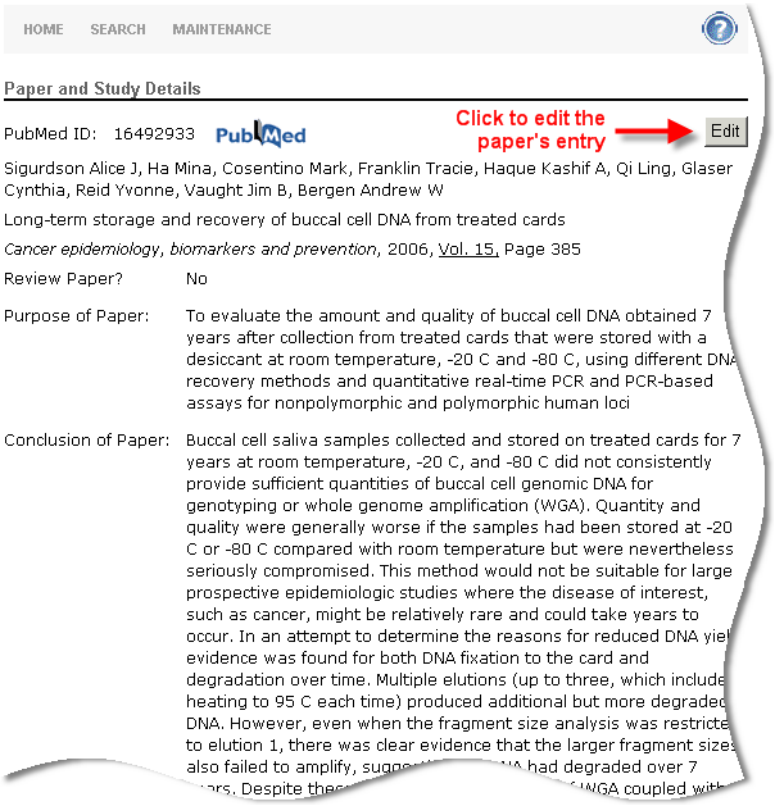


Figure 2.5 Edit button on the Paper and Study Details page

4. Click **Edit**. The Add/Edit Published Paper page appears showing the paper's editable fields (*Figure 2.6*).

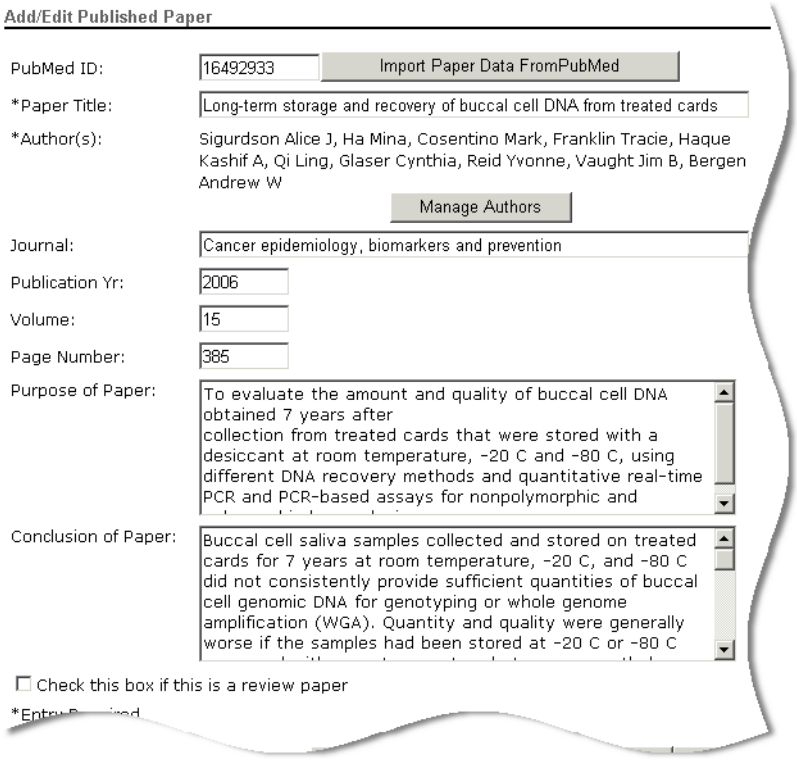


Figure 2.6 Editable fields on the Add/Edit Published Paper page

5. Edit any field on the page as needed. For more information on providing information in the Add/Edit Published Paper page, see *Adding Published Papers* on page 19.
6. Click **Save**. A confirmation message appears asking if you are sure you want to add or update this paper.
7. Click **OK**. The message `updatePaperSuccess` appears at the top of the page.

Managing Paper Authors

When you add papers to the Biospecimen Research Database, you must select authors from a list. As curator you can manage this list by adding new authors or correcting the spelling of author names.

To manage paper authors

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Add or edit a published or unpublished paper. For more information, see *Adding and Editing Published Papers* on page 19 and *Adding and Editing Unpublished Papers* on page 24.

3. From the Add/Edit Published Paper or Add/Edit Unpublished Paper page, click **Manage Authors**. The Select Paper Authors page appears.

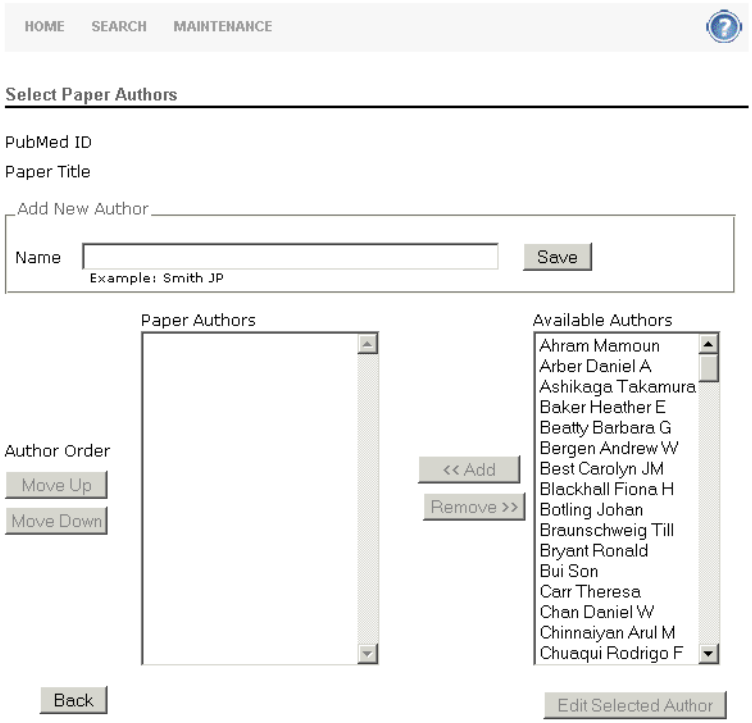


Figure 2.7 Select Paper Authors page

4. Search for the author's name by scrolling the Available Authors list. If the author appears in that list, select the name and click **<<Add**. The author's name moves to the Paper Authors list.
   - If a paper author does not yet appear in the Available Authors list, enter the author's name in the Add New Author area of the page. Click **Save**. The author's name appears in the Paper Authors list.
   - If the name of a paper author in the list is spelled incorrectly, select the name in the Available Authors list and then click **Edit Selected Author**. The Edit Author area appears below the list. In the Name field, enter the author's name and then click **Save**. The corrected name appears immediately in the Available Authors list. The message `updateAuthorSuccess` appears at the top of the page.
5. Click **Back** to return to your starting page.

Adding and Editing Unpublished Papers

For more information about adding and editing unpublished papers to the Biological Research Database, see:

- *Adding Unpublished Papers* on page 24
- *Editing Unpublished Paper Entries* on page 26

Adding Unpublished Papers

To add unpublished papers

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add Unpublished Paper**. The Add/Edit Unpublished Paper page appears.

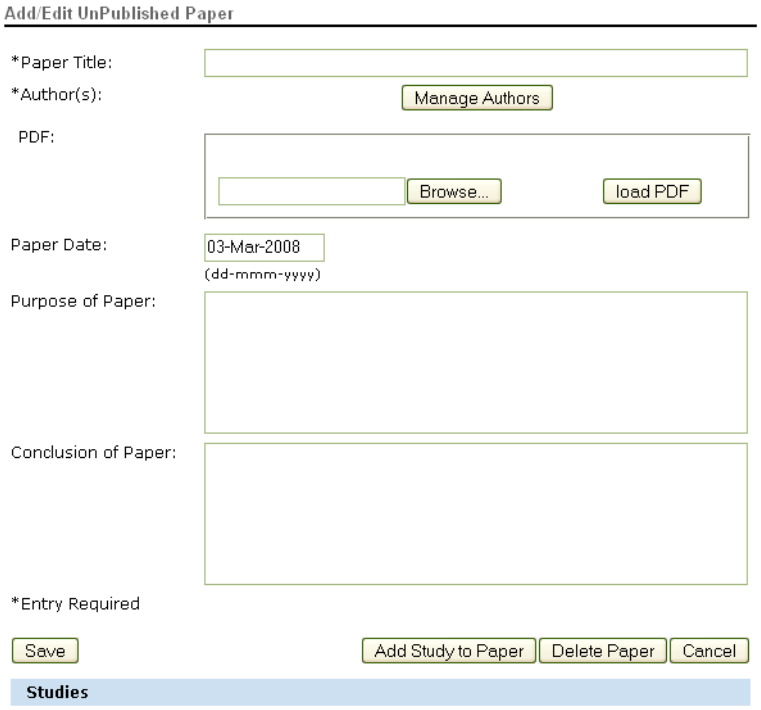


Figure 2.8 Add/Edit Unpublished Paper page

3. In the Paper Title field, enter the paper's full title.

4. Click **Manage Authors**. The Select Paper Authors page appears.

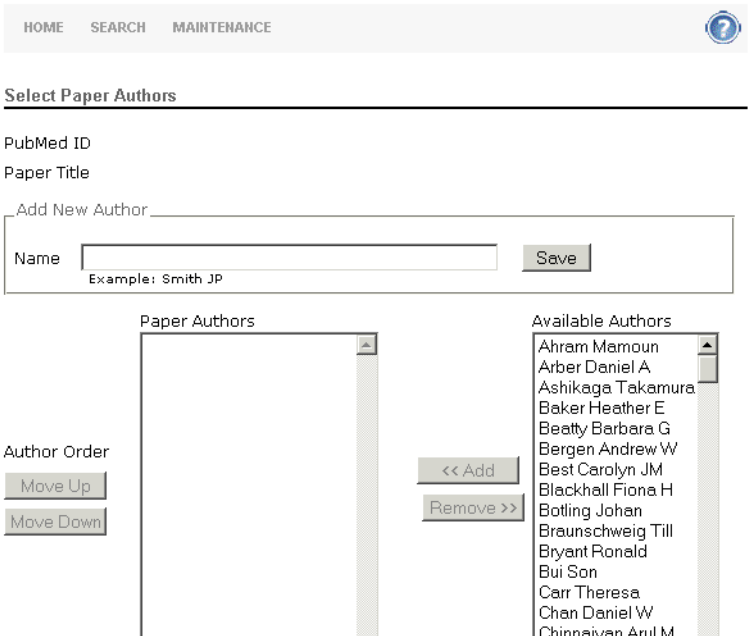


Figure 2.9 Select Paper Authors page

   a. Search for the author's name by scrolling the Available Authors list. If the author appears in that list, select the name and click **<<Add**. The author's name moves to the Paper Authors list.

   b. If a paper author does not yet appear in the Available Authors list, enter the author's name in the Add New Author area of the page. Click **Save**. The author's name appears in the Paper Authors list.

   c. Click **Back** to return to the Add/Edit Unpublished Paper page.

5. If possible, upload the paper in Portable Document Format (PDF) to the Biospecimen Research Database by clicking **Browse**, locating the file, and then clicking **load PDF**.
6. Add other information about the published paper such as the Paper Date (in dd-mmm-yyyy format), Purpose of Paper, and Conclusion of Paper.
7. Click **Save**. A message appears asking you to confirm the addition of the paper.
8. Click **OK**. If the paper is added to the database successfully, the message `createPaperSuccess` appears in red at the top of the page.
9. If you want to add associated studies to this paper, click **Add Study to Paper**. See *Managing Study Entries* on page 27 for more information.

Editing Unpublished Paper Entries

To edit unpublished paper entries

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Search for the unpublished paper you want to edit. For more information on searching, see *Search Overview* on page 5. The Search Results page appears.
3. Select the paper that you want to edit. If you have the privilege to edit the paper, the Paper and Study Details page appears with an Edit button in the upper right corner (*Figure 2.5*).
4. Click **Edit**. The Add/Edit Unpublished Paper page appears showing the paper's editable fields.

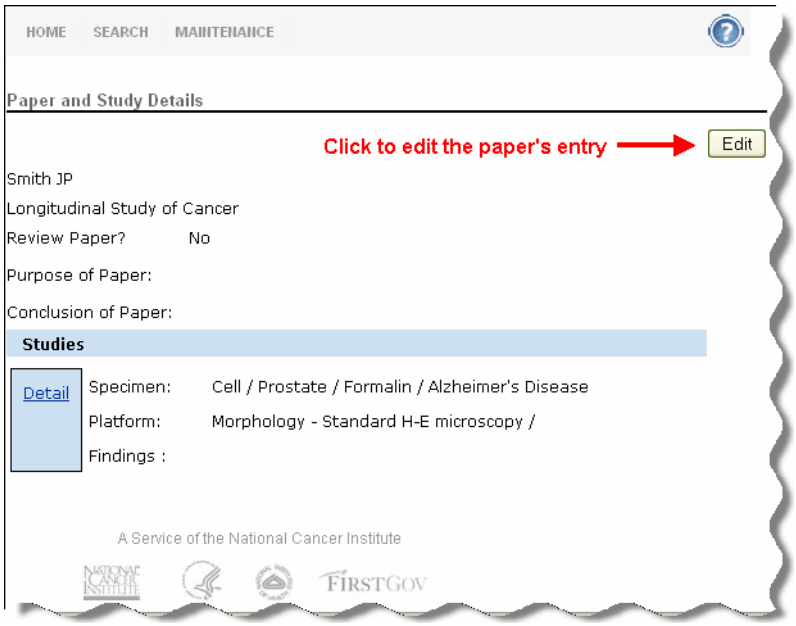


Figure 2.10 Edit button on the Paper and Study Details page

5. Edit any field on the page as needed. For more information on providing information in the Add/Edit Unpublished Paper page, see *Adding Unpublished Papers* on page 24.
6. Click **Save**. A confirmation message appears asking if you are sure you want to add or update this paper.
7. Click **OK**. The message `updatePaperSuccess` appears at the top of the page.

Managing Study Entries

This section contains the following topics:

Adding Studies to Papers

Once you add a paper to the Biospecimen Research Database, you can add studies to it and also edit those study entries.

Note: Mention genes relevant to the studies in the Study Purpose and Summary of Findings fields.

To add studies to papers

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Add or edit a published or unpublished paper. For more information, see *Adding and Editing Published Papers* on page 19 and *Adding and Editing Unpublished Papers* on page 24.
3. From the Add/Edit Unpublished Paper or Add/Edit Published Paper page, click

Add Study to Paper. The Add/Edit Study page appears (*Figure 2.11*).

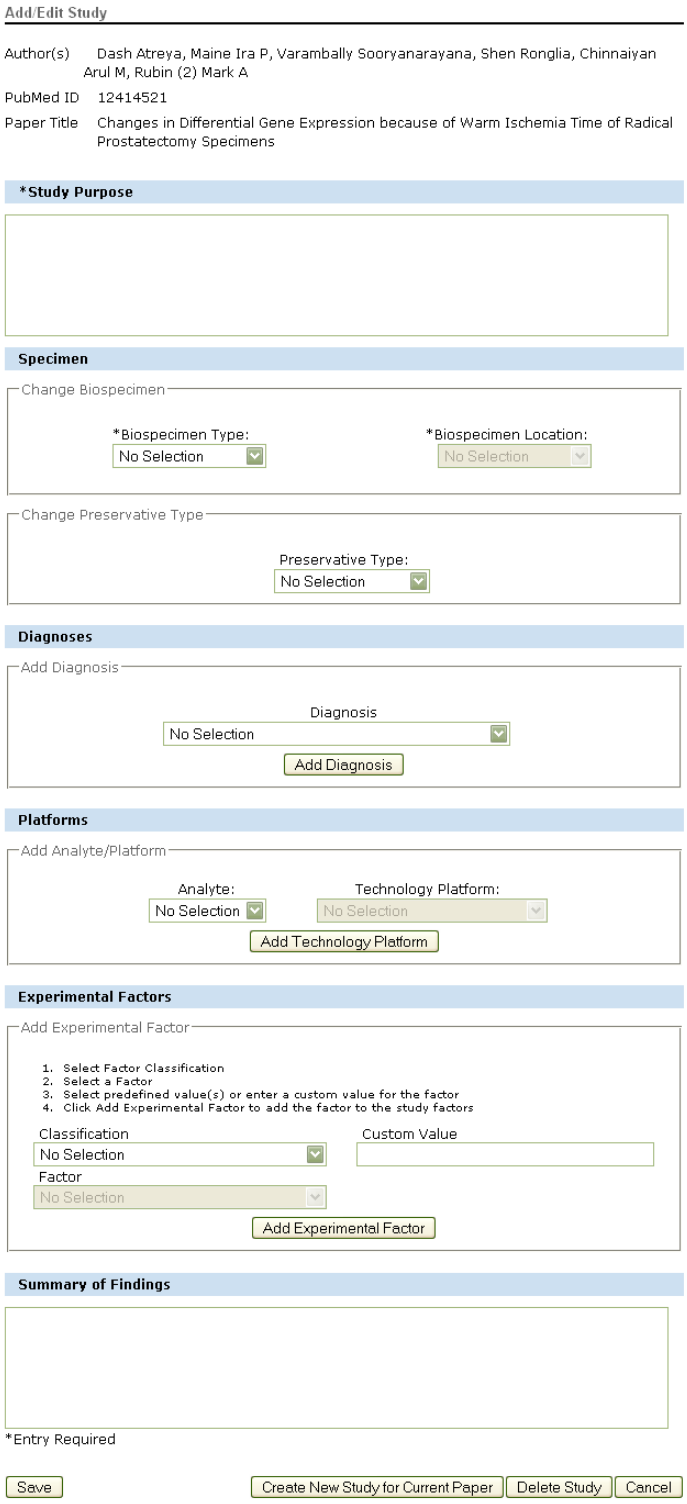


Figure 2.11 Add/Edit Study page

4. Enter text in the Study Purpose box (required).
5. From the relevant lists, select a Biospecimen Type (required), Biospecimen Location (required), and Preservative Type.

6. From the Diagnosis list, select a diagnosis. While it is not an exhaustive list of every human disease, this list contains many of the most common diagnoses. For a Neoplastic diagnosis, select a diagnosis subcategory. For more information about selecting a diagnosis subcategory, see *Matching Tumor Types to Diagnosis Subcategories* on page 30.

   Note: Note that the adjacent nontumor tissue appears under the diagnosis `neoplastic` and the diagnosis subcategory of `normal adjacent`.

7. Click **Add Diagnosis**.

   Note: To delete a diagnosis you have entered (for example, you chose a third diagnosis when only the first two were relevant to the paper), in the Diagnoses Entered area, select the checkbox in the Remove column for that diagnosis and then click **Remove Selected Diagnosis**.

8. In the Add Analyte/Platform section, select an analyte and companion technology platform. Repeat as often as necessary for the study.

   Note: Each analyte has a different subset of available technology platforms. It is possible that different analytes may share the same technology platform. Also, the available technology platforms are managed through mapping. See *Mapping an Analyte to Technology Platforms* on page 41 for more information.

9. Click **Add Technology Platform**.

10. For each experimental factor that the study investigated, repeat the following procedure:

    a. Select a factor classification.

    b. Select a factor. Available factors are determined by the factor classification.

    c. Select a predefined value or, if the appropriate one is not in the list, specify a custom value.

    Note: For custom values, use the standard abbreviations in the International System of Units (SI Units), which can be viewed at http://physics.nist.gov/cuu/Units/units.html, and the standard abbreviations outside the SI, such as minutes, listed at http://physics.nist.gov/cuu/Units/outside.html.

    d. Click **Add Experimental Factor**.

11. Enter text in the Summary of Findings box.

12. Click **Save**. A message appears asking you to confirm the addition of the study.

13. Click **OK**. If the study is added to the paper successfully, the message `createStudySuccess` appears in red at the top of the page.

    Note: To continue adding more studies to the current paper, click **Create New Study for Current Paper**.

Matching Tumor Types to Diagnosis Subcategories

When adding studies to papers, curators must assign accurate diagnoses and diagnosis subcategories, as necessary. When a paper uses tumor specimens and you select the diagnosis Neoplastic, which subcategory to choose may not always be obvious. For example, a paper may use glioblastoma multiforme biospecimens, a type of carcinoma.

The following table presents some of the more common cancer diagnoses that curators may assign to studies, definitions of those diagnoses, and links to their subcategories. If the diagnosis you are looking for is not included in this table, an online search might help you decide which diagnosis to choose.

Tumor Type (Diagnosis)	***Definition and Link to Diagnosis Subcategories***
Carcinoma	Cancer that begins in the skin or in tissues that line or cover internal organs. For specific types, see: http://en.wikipedia.org/wiki/Carcinoma#Types_of_carcinoma_by_ICD-O_Code
Germ cell	A type of tumor that begins in the cells that give rise to sperm or eggs. Germ cell tumors can occur almost anywhere in the body and can be either benign or malignant. For specific types, see: http://en.wikipedia.org/wiki/Germ_cell_tumor#Classification
Leukemia	Cancer that starts in blood-forming tissue such as the bone marrow and causes large numbers of blood cells to be produced and enter the bloodstream. For specific types, see: http://en.wikipedia.org/wiki/Leukemia#Comparison_of_leukemia_types
Lymphoma	Cancer that begins in cells of the immune system. There are two basic categories of lymphomas: Hodgkin lymphoma and non-Hodgkin lymphomas. For specific types, see: http://en.wikipedia.org/wiki/Lymphoma#Classification
Melanoma	A form of cancer that begins in melanocytes (cells that make the pigment melanin). It may begin in a mole (skin melanoma), but can also begin in other pigmented tissues, such as in the eye or in the intestines. For specific types, see: http://en.wikipedia.org/wiki/Melanoma#Types_of_primary_melanoma
Pediatric	Having to do with children. For specific types, see: http://en.wikipedia.org/wiki/Cancer#Child_cancers
Sarcoma	A cancer of the bone, cartilage, fat, muscle, blood vessels, or other connective or supportive tissue. For specific types, see: http://en.wikipedia.org/wiki/Sarcoma#Types_of_sarcoma

Table 2.1 Tumor Types and Links to Diagnosis Subcategories

Editing Study Entries

You can edit studies you have curated. If you did not curate the study you want to edit, you can only view the study.

To edit study entries

1. Search for a study. For more information on ways to search the Biospecimen Research Database, see *Search Overview* on page 5.
2. On the Search Results page, select the study you want to edit by clicking the author link. If you have the privilege to edit the paper, the Paper and Study

Details page appears with an Edit button in the upper right corner (*Figure 2.5*).

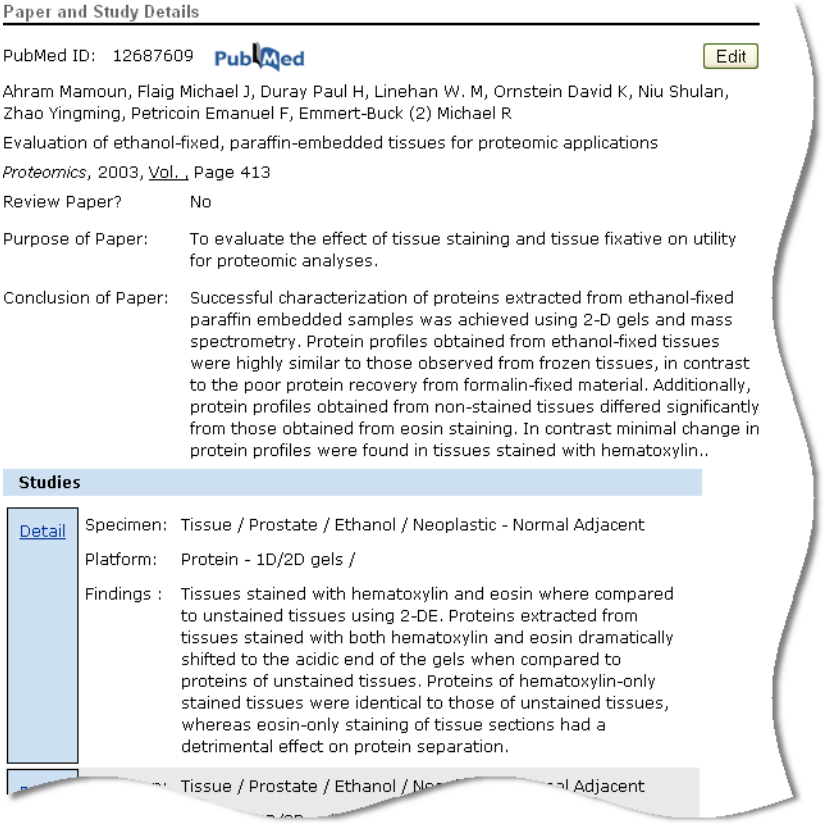


Figure 2.12 Paper and Study Details page

3. Scroll down the page to the Studies area. Click the **Detail** link for the study you want to edit. If you have the privilege to edit the paper, the Study Details page appears with an Edit button in the upper right corner.

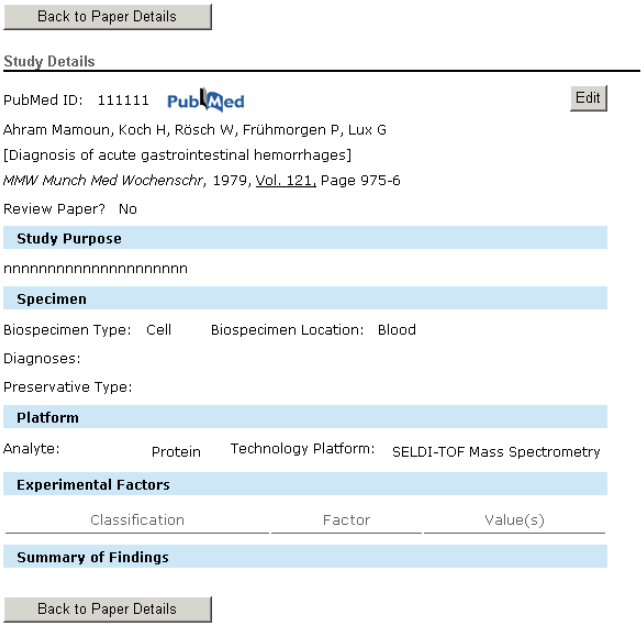


Figure 2.13 Study Details page

4. Click **Edit**. The Add/Edit Study page appears.

5. Change any of the information associated with the paper on this page. Refer to *Managing Study Entries* on page 27 for more information.
6. Click **Save**. A message appears asking you to confirm your edits.
7. Click **OK**. If your edits were incorporated into the study's entry successfully, the message `updateStudySuccess` appears in red at the top of the page.

Deleting Study Entries

You can delete studies you have curated. If you did not curate the study you want to delete, you can only view the study.

To delete study entries

1. Search for a study. For more information on ways to search the Biospecimen Research Database, see *Search Overview* on page 5.
2. On the Search Results page, select the study you want to delete by clicking the author link. The Paper and Study Details page appears.
3. Click **Edit** in the upper-right corner. The Add/Edit Published Paper page appears.
4. Scroll down the page to the Studies area. Click the **Detail** link for the study you want to edit. The Study Details page appears.
5. Click **Edit** in the upper-right corner. The Add/Edit Study page appears.
6. Scroll to the end of the page and click **Delete Study**.
7. Click **Save**. A message appears asking you to confirm the deletion.
8. Click **OK**. If you successfully deleted the study, the message `deleteStudySuccess` appears in red at the top of the page.

Adding and Editing Database Values

Experimental factors, biospecimen types, biospecimen locations, and technology platforms are all managed for common use by studies in the Biospecimen Research Database. Curators can add and edit them.

Note: The database values included in this section are the only ones curators should modify. If you would like to make changes to any other values, contact Dr. Ian Fore at forei@mail.nih.gov.

Topics in this section include:

Adding and Editing Experimental Factors

Curators can add and edit the experimental factors that the Biospecimen Research Database makes available to all studies. When adding an experimental value, use the standard abbreviations in the International System of Units (SI Units), which can be viewed at http://physics.nist.gov/cuu/Units/units.html, and the standard abbreviations outside the SI, such as minutes, listed at http://physics.nist.gov/cuu/Units/outside.html.

To add an experimental factor

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Experimental Factors**. The Add/Edit Experimental Factors page appears.

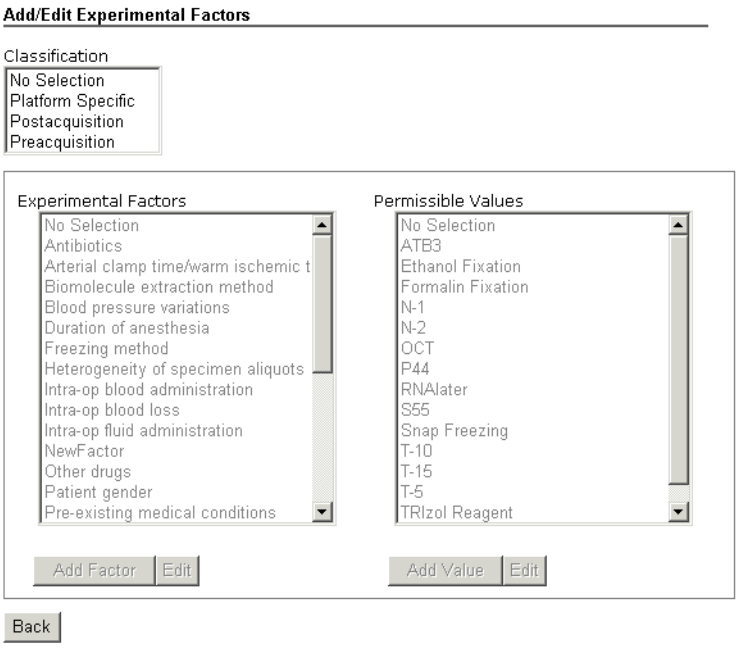


Figure 2.14 Add/Edit Experimental Factors page

3. Select a classification for the experimental factor by highlighting it in the Classification list. Options include:

Classification	***Explanation***
No Selection	These factors do not fit into any of the other classifications, e.g., a paper comparing results from biospecimens collected and assayed at two different institutions would incorporate pre- and post-acquisition factors, therefore cannot be classified as one or the other.

Table 2.2 Classification Options for Experimental Factors

Classification	*Explanation*
Platform Specific	Refers to a factor that applies specifically to the technological methods employed. For example, a comparison of the efficacy of three different brands of RNase inhibitors on the quality of RNA extracted from the biospecimen would be specific to the RNA-quality platform on which the RNA quality was evaluated.
Postacquisition	Refers to factors that apply to the biospecimen after it has been removed from the patient.
Preacquisition	Refers to factors that apply to the biospecimen prior to and including its removal from the patient.

Table 2.2 Classification Options for Experimental Factors

4. Click the **Add Factor** button. An Add Experimental Factor section appears below the button.
5. Enter a name (required) and description (optional) for the new experimental factor in the relevant fields.
6. Click **Save**. The new factor appears in the Experimental Factors list and the `Added new ExperimentalFactor [Name]` message appears at the top of the page.

To edit an experimental factor

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Experimental Factors**. The Add/Edit Experimental Factors page appears.

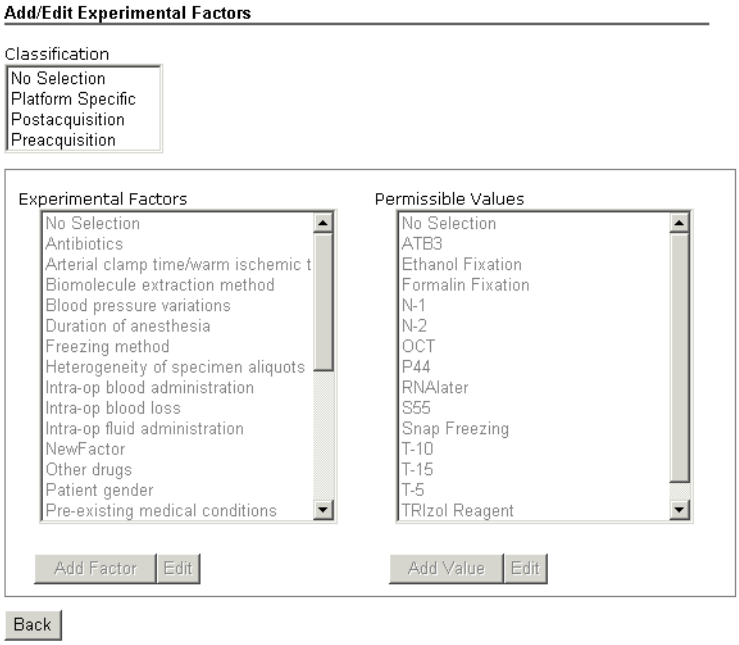


Figure 2.15 Add/Edit Experimental Factors page

3. To edit an experimental factor, select a classification for the experimental factor you want to edit. For more information on classifications, see *Adding and Editing Experimental Factors* on page 33.

a. From the Experimental Factors list, select an experimental factor by highlighting it. The Edit button becomes active.

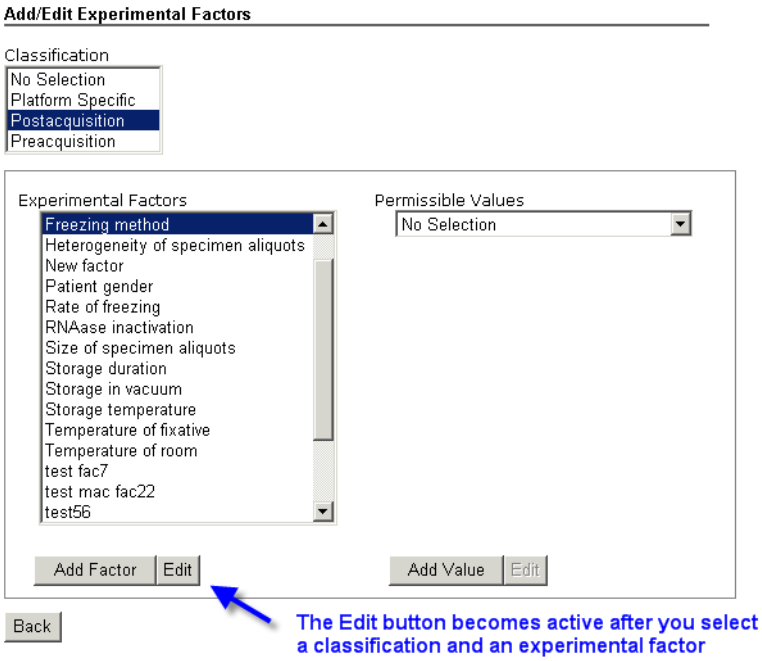


Figure 2.16 Active Edit button on the Add/Edit Experimental Factors page

b. Click **Edit**. An Edit Experimental Factor section appears at the bottom of the page.

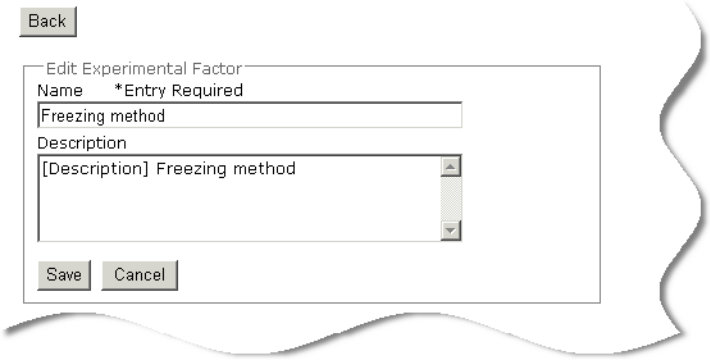


Figure 2.17 Edit Experimental Factor section of the Add/Edit Experimental Factors page

c. Change the experimental factor's name and description as needed.

Note: Keep the term [Description] at the beginning of each experimental factor's description.

d. Click **Save**. If your edit is successful, the message `Edited Experimental Factor` appears at the top of the page.

4. To edit an experimental factor's permissible values, which appear in the Permissible Values list on the right, select an experimental factor, and then select the value you want to change.

a. Click the **Edit** button below the list. An Edit Permissible Values section appears at the bottom of the page.

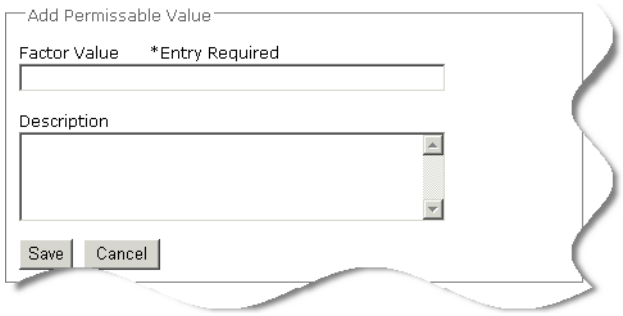


Figure 2.18 Add Permissible Value section of the Add/Edit Experimental Factors page

b. Change the permissible value's name and description as needed.

Note: Precede the permissible value's description with the word `[Description]`.

c. Click **Save**. If your edit is successful, the message `Edited Permissible Value` appears at the top of the page.

Adding and Editing Biospecimen Types

Curators can add and edit the biospecimen types that the Biospecimen Research Database makes available for all studies.

To add a biospecimen type

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Biospecimen Types**. The Add/Edit Biospecimen Types page appears.

Figure 2.19 Add/Edit Biospecimen Types page

3. Click **Add Type**. The Add Biospecimen Type section appears at the bottom of the page.

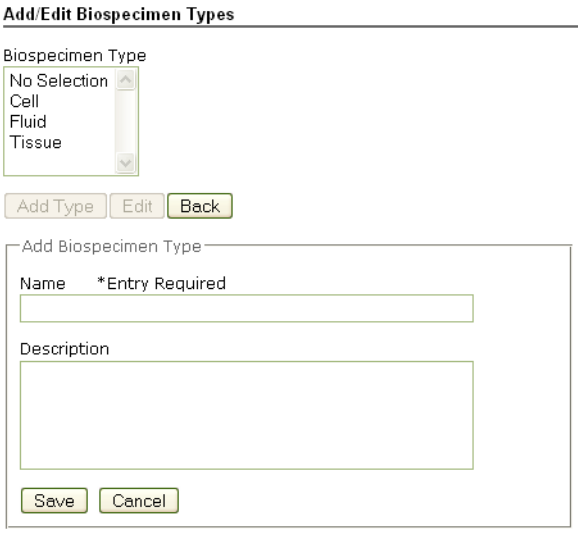


Figure 2.20 Add Biospecimen Type Section of Add/Edit Biospecimen Types page

4. Enter a name for the new biospecimen type. This entry is required.
5. Enter a description for the new biospecimen type.
6. Click **Save**. The new biospecimen type appears in the Biospecimen Type list.

To edit a biospecimen type

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Biospecimen Types**. The Add/Edit Biospecimen Types page appears.
3. Select the biospecimen type you want to edit. The Edit button becomes active.
4. Click **Edit**. The Edit Biospecimen Type section appears at the bottom of the page.

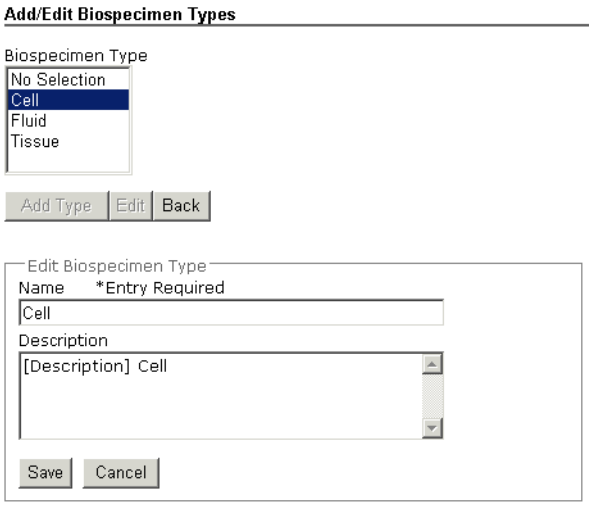


Figure 2.21 Edit Biospecimen Type section of the Add/Edit Biospecimen Types page

5. Change the biospecimen type's name and description as needed.

6. Click **Save**. The edited biospecimen type appears in the Biospecimen Type list.

Adding and Editing Biospecimen Locations

Curators can add and edit the biospecimen locations that the Biospecimen Research Database makes available for all studies.

To add a biospecimen location

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Biospecimen Locations**. The Add/Edit Biospecimen Locations page appears.

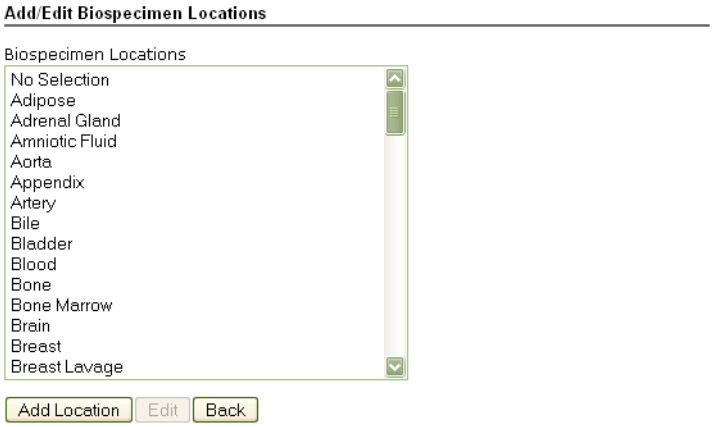


Figure 2.22 Add/Edit Biospecimen Locations page

3. Click **Add Location**. The Add Biospecimen Locations section appears at the bottom of the page.

Figure 2.23 Add Biospecimen Location Section of Add/Edit Biospecimen Locations page

4. Enter a name for the new biospecimen location. This entry is required.
5. Enter a description for the new biospecimen location.
6. Click **Save**. The new biospecimen location appears in the Biospecimen Location list.

To edit a biospecimen location

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Biospecimen Locations**. The Add/Edit Biospecimen Locations page appears.
3. Select a biospecimen location. The Edit button becomes active.
4. Click **Edit**. The Edit Biospecimen Location section appears at the bottom of the page.

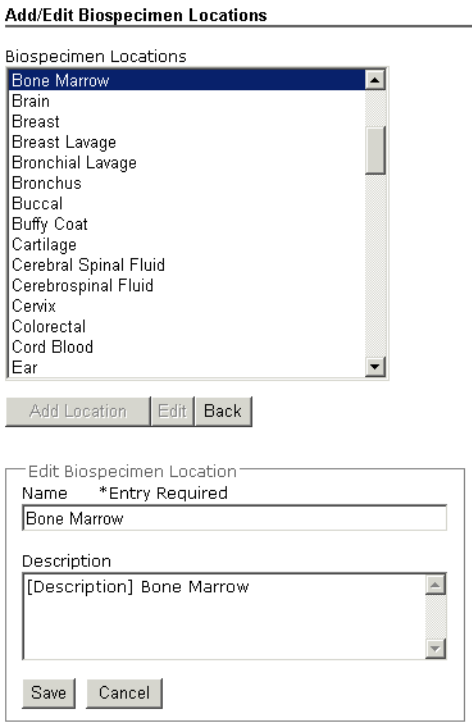


Figure 2.24 Edit Biospecimen Location section of the Add/Edit Biospecimen Locations page

5. Change the biospecimen location's name and description as needed.
6. Click **Save**. The edited biospecimen location appears in the Biospecimen Locations list.

Adding and Editing Technology Platforms

Curators can add and edit the technology platforms that the Biospecimen Research Database makes available for all studies.

To add a technology platform

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Technology Platform**. The Add/Edit Technology Platforms page appears.

Figure 2.25 Add/Edit Technology Platforms page

3. Click **Add Tech Platform**. The Add Technology Platform section appears below that button.

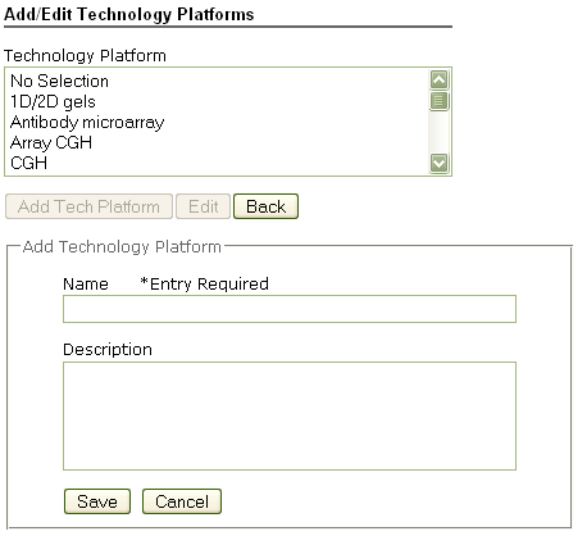


Figure 2.26 Add Technology Platform Section of Add/Edit Technology Platforms page

4. Enter a name for the new technology platform. This entry is required.
5. Enter a description for the new biospecimen location.
6. Click **Save**. The new technology platform appears in the Technology Platform list.

To edit a technology platform

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Add/Edit Technology Platform**. The Add/Edit Technology Platform page appears.
3. Select a technology platform. The Edit button becomes active.

4. Click **Edit**. The Edit Technology Platform section appears at the bottom of the page.

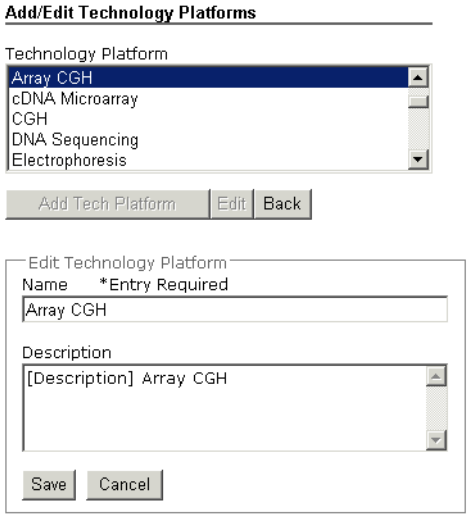


Figure 2.27 Edit Technology Platform section of the Add/Edit Technology Platforms page

5. Change the technology platform's name and description as needed.
6. Click **Save**. The edited technology platform appears in the Technology Platform list.

Mapping Database Values

Maps that you create between database values allow curators to ensure that the appropriate associations are made between items that are only relevant to particular factors.

Topics in this section include:

- *Mapping an Analyte to Technology Platforms* on page 41
- *Mapping Technology Platforms to Experimental Factors* on page 43
- *Mapping Biospecimen Types to Biospecimen Locations* on page 44

Mapping an Analyte to Technology Platforms

You must associate a technology platform with the biomolecule upon which it acts. For example, Southern Blots are used to assay DNA, therefore you would map the Southern Blot platform to DNA rather than RNA, protein, or any other analyte.

Note: You can map the same technology platform to different analytes.

To map an analyte to technology platforms

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Map Analyte to Technology Platforms**. The Map Analyte to Technology Platforms page appears.

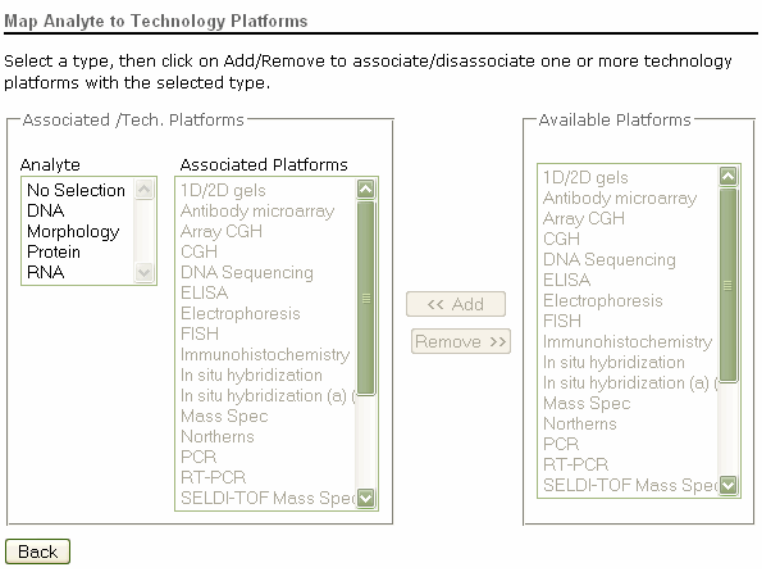


Figure 2.28 Map Analyte to Technology Platforms page

3. From the Analyte list, select an analyte by highlighting it.
4. Move all of the technology platforms that should be associated with the selected analyte to the Associated Platforms list. If a technology platform you want to select is in the Available Platforms list, select it and click **<< Add**.
5. If a technology platform that should *not* be associated with the selected analyte is in the Associated Platforms list, select it and click **Remove >>** to move it to the Available Platforms list.

   The change in mapping takes effect immediately. To return to the BRN System Code Maintenance page, click **Back**.

Mapping Technology Platforms to Experimental Factors

You must associate an experimental factor with a technology platform. For example, in Enzyme-Linked ImmunoSorbent Assays (ELISA), one technician might slam the 96-well plate on the counter to clear it of residue while another technician might not. In this case, the experimental factor "slam: yes or no" would be specific to the ELISA platform.

To map technology platforms to experimental factors

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Map Technology Platforms to Experimental Factors**. The Map Technology Platforms to Experimental Factors page appears.

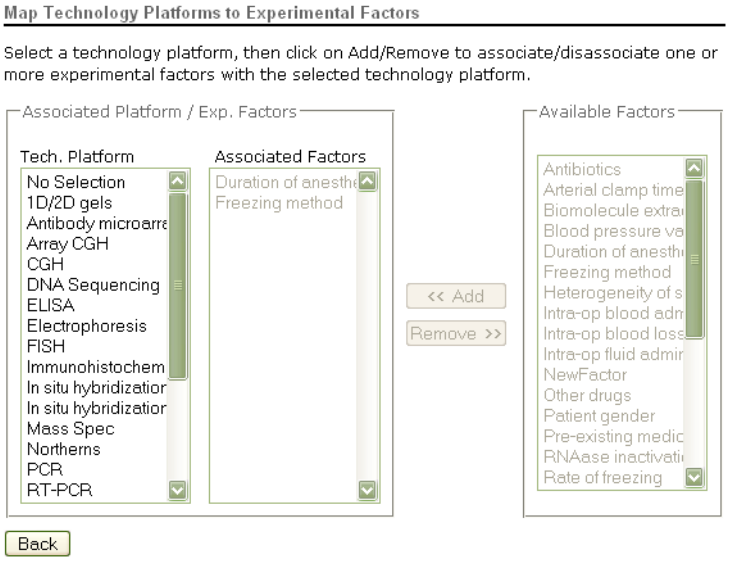


Figure 2.29 Map Technology Platforms to Experimental Factors page

3. From the Tech. Platform list, select a technology platform by highlighting it.
4. Move all of the experimental factors that should be associated with the selected technology platform to the Associated Factors list. If an experimental factor you want to select is in the Available Factors list, select it and click **<< Add**.
5. If an experimental factor that should *not* be associated with the selected technology platform is in the Associated Factors list, select it and click **Remove >>** to move it to the Available Factors list.

   The change in mapping takes effect immediately. To return to the BRN System Code Maintenance page, click **Back**.

Mapping Biospecimen Types to Biospecimen Locations

Mapping biospecimen types with biospecimen locations makes it possible to associate this information with studies you curate.

To map biospecimen types to biospecimen locations

1. Log in to the Biospecimen Research Database. For more information, see *Logging in as a Curator* on page 18.
2. Click **Map Biospecimen Types to Biospecimen Locations**. The Map Biospecimen Types to Biospecimen Locations page appears.

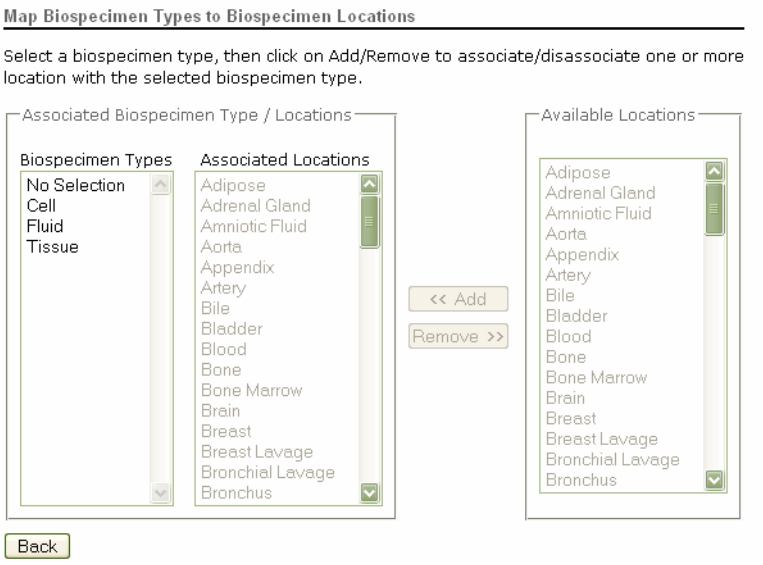


Figure 2.30 Map Biospecimen Types to Biospecimen Locations page

3. From the Biospecimen Types list, select a biospecimen type by highlighting it.
4. Move all of the biospecimen locations that should be associated with the selected biospecimen type to the Associated Locations list. If a biospecimen location you want to select is in the Available Locations list, select it and click **<< Add**.
5. If a biospecimen location that should *not* be associated with the selected biospecimen type is in the Associated Locations list, select it and click **Remove >>** to move it to the Available Locations list.

   The change in mapping takes effect immediately. To return to the BRN System Code Maintenance page, click **Back**.

Adding Users and Roles

The Biospecimen Research Database uses the NCICB Common Security Module (CSM) User Provisioning Tool to manage users and roles.

For full documentation of these tasks, see Chapter 4, "Using the User Provisioning Tool", in the caCORE CSM Technical Guide.

INDEX