



# **Subject Management**



## CHAPTER 6 – SUBJECT MANAGEMENT

---

The **Subject Management Module** enables data to be associated with a research participant without exposing or transferring the research participant’s personally identifiable information (PII). This is done by using a GUID (Global Unique Identifier). It is randomly generated, alphanumeric code that is not generated directly from PII. This capability provides two primary benefits. First, it allows data about a research participant to be accumulated across projects over time, regardless of where and when that data were collected. Secondly, it enables a researcher to define a study population while supporting a research hypothesis, even if the data were not collected by the researcher.

This second benefit is further enabled through the use of the Multi-Tenant GUID server (Centralized GUID Solution), which facilitates the sharing of GUIDs across diseases and/or institutes in a secure manner.

The GUID Client software is a JavaScript application that runs directly in your web-browser. The GUID Client is supported on all browsers (Google Chrome, Firefox, Microsoft Edge, and Safari).

---

### 6.1 Subject Management PROCESS

Researchers collect PII (sometimes referred to as Private Health Information or PHI) from their participants and store that data in a local database that is not made available outside the research institution. Typically, that data is only available to a limited number of individuals. It is the availability of this at the investigator’s site that is used to generate GUIDs (Global Unique Identifiers). This is made possible by issuing special software that runs at the research site on an investigator’s computer or allowing users to access it through an application. This software performs a one-way encryption, often called a one-way hash, which is sent to the Subject Management Client to determine if the research subject hash codes have been seen by the system before. The encrypted hash codes do not have information to recreate the PII. However, they do have enough information to determine if a research participant and associated GUID already exists in the system.

---

### 6.2 SYSTEM FUNCTIONS

The following are the service functions that compose the GUID Module:

- ❖ **Create GUID** – This function generates a valid GUID, provided the minimum required PII information is available. This module uses a hash function to generate a unique GUID for each participant. (Refer to the valid versus Pseudo-GUID section for more information).
- ❖ **Convert Pseudo GUID to GUID** – Allows users to convert Pseudo-GUIDs to valid GUIDs. Users need to provide the minimum required PII fields and the Pseudo-GUIDs.
- ❖ **Create Multiple GUIDs (With Close Match Checking and Without Close Match Checking)** — This function generates multiple participant GUIDs from a single call to the server. The batch functionality will process 50 participants at a time with a 5 minute delay between each 50 participants processed. The functionality operates using a .csv file that includes PII information (Refer to Table 1. PII Fields) and creates as an output with the list of GUID(s).

- ❖ **Generate Pseudo GUID** – Generates a Pseudo-GUID with a different format from a valid GUID. A Pseudo-GUID is a unique ID that is not based on PII. PII is not required to obtain a Pseudo-GUID. This function should only be used if a user is unable to get a valid GUID using the Create GUID function due to insufficient PII for a participant. (Refer to the valid GUID versus Pseudo-GUID section for more information on Pseudo-GUIDs.)
- ❖ **Search if GUID (or Pseudo GUID) exists in the system**– Allows users to check if a GUID (or Pseudo GUID) exists in the database. Users must provide a valid GUID or a Pseudo-GUID to use this function. If the submitted GUID exists in the database, the result will state “The GUID already exists”. If the GUID does not exist in the database, the result will state “The GUID does not exist.”

---

**ICON KEY**

---

 Notes

---

 Important

---

Information**Things to Note:**

- ❖ A one-way hash is a reproducible method of turning any data into a (relatively) small number that may serve as a digital "fingerprint" of the data. The algorithm "chops and mixes" (i.e., substitutes or transposes) the data to create such fingerprints. The hash represents the "fingerprint". However, it cannot be used to recreate the original.

## 6.3 PII FIELDS USED TO GENERATE A GUID

The PII fields that are used to generate a GUID are listed below in Table 1. The PII fields are pieces of data that will not change over the lifetime of the participant and are uniquely specific to the participant. Each PII field has an associated probability of a match in the general population. By combining full legal name, date of birth, and municipality of birth, the probability that two individuals share the same information and thus the same hash codes (i.e. a false positive) becomes negligible and is the minimum required information to generate a valid GUID. Additional data that is provided beyond the required minimum further decreases the probability of a false positive.

Additionally, in order to generate a GUID, the following PII is required:

- ❖ Complete legal given (first) name of the subject at birth
- ❖ If the subject has a middle name
- ❖ Complete legal family (last) name of subject at birth
- ❖ Day of birth
- ❖ Month of birth
- ❖ Year of birth
- ❖ Name of city/municipality in which subject was born
- ❖ Country of birth

---

### ICON KEY

---

 Notes

---

❖ Important  
Information

#### Things to Note:

- ❖ When inputting participant information, it is recommended that the information is derived from a government issued document/resource, such as a birth certificate or driver's license.

### 6.3.1 PII Fields Table

PII Field name	GUID Client Abbreviations	PII Required for Valid GUID
Complete legal given name of subject at birth	FIRST_NAME	Yes
Indicator if subject has a Middle Name at Birth	SUBJECT_HAS_MIDDLE_NAME	Yes
Complete additional legal name or names at birth	MIDDLE_NAME	No
Complete legal family name/surname of subject at birth	LAST_NAME	Yes
Day of Birth	DOB	Yes
Month of Birth	MOB	Yes
Year of Birth	YOB	Yes
City or Municipality of Birth	CITY_OF_BIRTH	Yes
Country of Birth	COUNTRY_OF_BIRTH	Yes

PII Field name	GUID Client Abbreviations	PII Required for Valid GUID
Government Issued or National ID (For the United States, this is the Social Security Number)	GIID	No
Country Issuing Government-Issued or National ID	GIIDCOUNTRY	No
Organization/Cohort Association	ORGANIZATION_COHORT_ASSOCIATION	No
Physical sex of subject at birth [M/F]	SEX	No

**NOTE:** The “Organization/Cohort Association” field is specific to the Parkinson’s Disease Biomarkers Program (PDBP) instance of BRICS. Values for this field will only be available for PBDP.

### 6.3.2 Special Instructions

Listed below are some special instructions that must be followed in order to ensure a valid GUID is created:

1. The "Last Name" field must contain the family name given at birth, prior to legal name change, or marriage. If there is any doubt as to the original legal name at birth, refer to the information on the birth certificate. Name suffixes such as "Jr.," "Sr.," "III", etc. should be ignored.
2. If the participant's "First Name" is a compound name, such as Anne Marie, or Jose- Luis, it may be unclear whether the second part of the compound is a first name or a middle name. In such cases, use the first name as you would report it on other records, such as school transcripts, or credit card billing statements. If in doubt, refer to the birth certificate.
3. If the participant does not have a "Middle Name" (known not to have a middle name at birth), leave this field blank and respond "No" when asked if the individual has a middle name. The GUID Software has a selection to accommodate this possibility. If in doubt, refer to the birth certificate.
4. If the "City or Municipality of Birth" has undergone a name change during a participant's lifetime, use the name of the city at the time of the participant's birth. Examples of this are Peking / Beijing, or Bombay / Mumbai. Again, if there is any doubt, refer to the birth certificate.

It is recommended that the participant's birth certificate and any copies of the participant's birth certificate be returned to the participant and not retained by the site.

### 6.3.3 Valid GUID Versus Pseudo-GUID

A Valid GUID is a GUID that has been successfully issued using PII and is always a random ID. For retrospective data, it is understood that the minimum amount of PII may not be available or sufficient to generate a Valid GUID. For this reason, the tool provides the capability to issue a Pseudo-GUID. A Pseudo- GUID contains no PII and can be generated using the Generate Pseudo GUID function. Like a GUID, a Pseudo-GUID will always be unique. Pseudo-GUIDs are not compared to other participants (including Valid GUIDs). The advantage of using a Pseudo- GUID as an ID within a study is that it can later be updated to get a new Valid GUID while maintaining a mapping in the system for the Pseudo-GUID to the Valid GUID.

#### 6.3.4 GUID Composition

A GUID must start with a prefix. The prefix is typically an abbreviation of a disease category. Examples of prefixes are TBI for Traumatic Brain Injury, PD for Parkinson's disease, and GRDR for Global Rare Diseases (Patient) Registry and Data Repository.

An example of a Valid GUID is: TBIAC412JJK

Users participating in the Multi-Tenant GUID server will generate a universal GUID with an NIH prefix consisting of ten (10) alphanumeric characters. An example of a Multi-Tenant GUID is: NIH07HB817JK7

### 6.3.4 GUID Composition

A GUID must start with a prefix. The prefix is typically an abbreviation of a disease category. Examples of prefixes are TBI for Traumatic Brain Injury, PD for Parkinson's disease, and GRDR for Global Rare Diseases (Patient) Registry and Data Repository.

An example of a Valid GUID is: **TBIAC412JJK**

Users participating in the Multi-Tenant GUID server will generate a universal GUID with an NIH prefix consisting of ten (10) alphanumeric characters. An example of a Multi-Tenant GUID is: **NIH07HB8I7JK7**

The GUID consists of a prefix, GUID pattern, and check character.

- The prefix is dependent on what BRICS instance you're using.
- The GUID pattern follows the schema: **AANNNA** Where **A** represents an alphabetic with the exception of the letters: I, O, S (as they are easily confused with certain numbers). **N** represents a number. Both **A** and **N** are generated using a nondeterministic random number generator.
- The check character can be numerical or alphabetic.

Here is a valid GUID sample: **TBICJ743PV3**

Where,

Prefix:	<b>TBI</b>
Pattern:	<b>CJ743PV</b>
Check:	<b>3</b>

### 6.3.5 Pseudo-GUID Composition

Here is a Pseudo-GUID sample: **TBI\_INVZG542YHV**

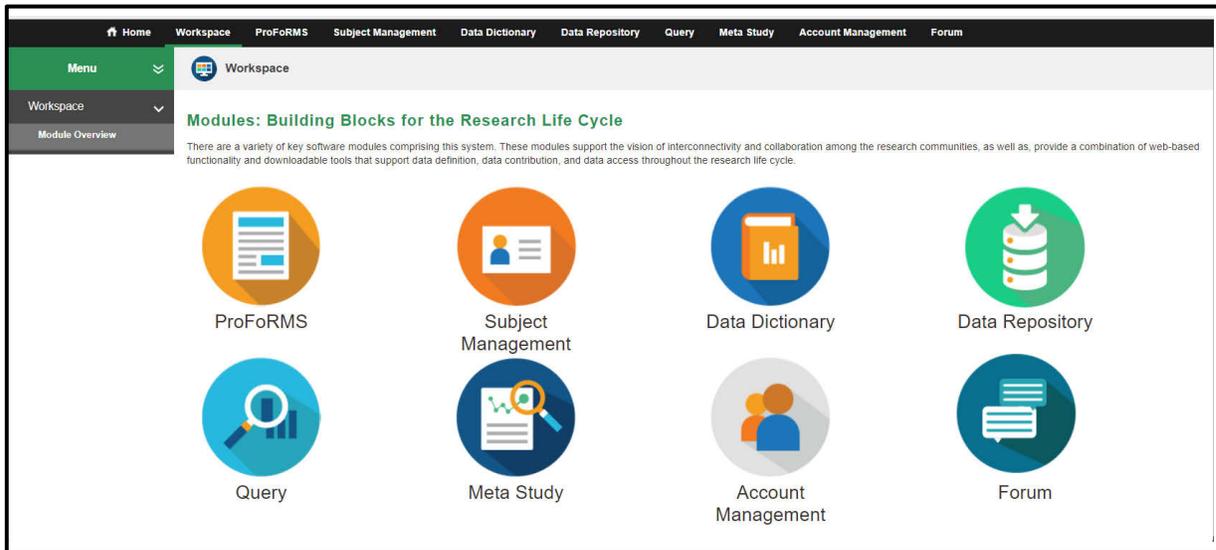
The format of the pseudo-GUID is identical to that of a valid GUID with the exception that the prefix will differ. Here it is **TBI\_INV** instead of **TBI**.

## 6.4 USING THE Subject Management Tool

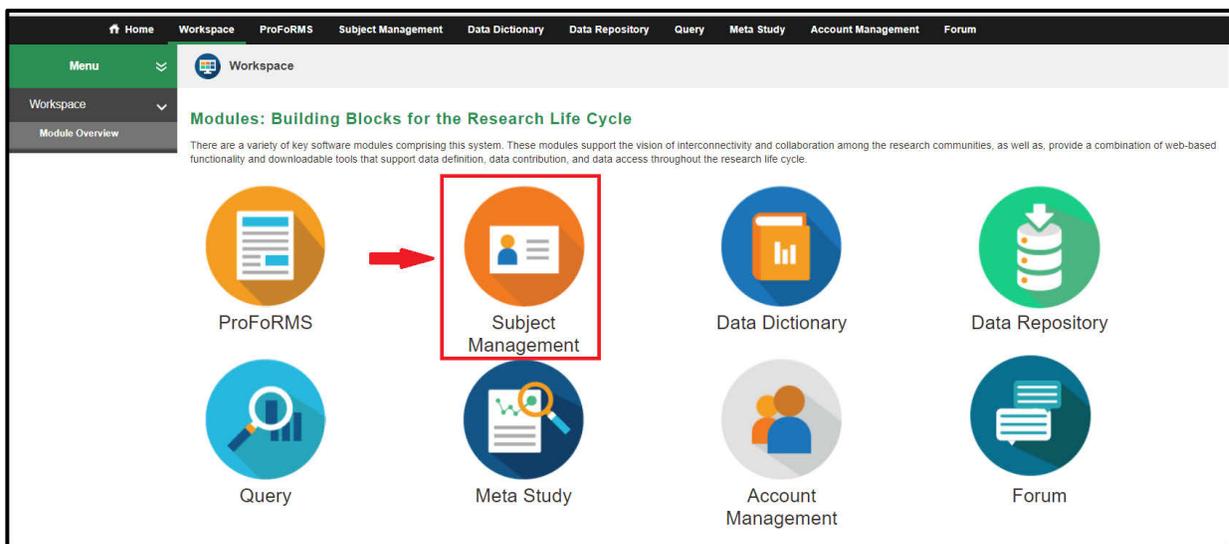
The Subject Management client software is a web-based, JavaScript application and is accessible directly through your internet browser.

To access the **Subject Management** module: Perform the following actions:

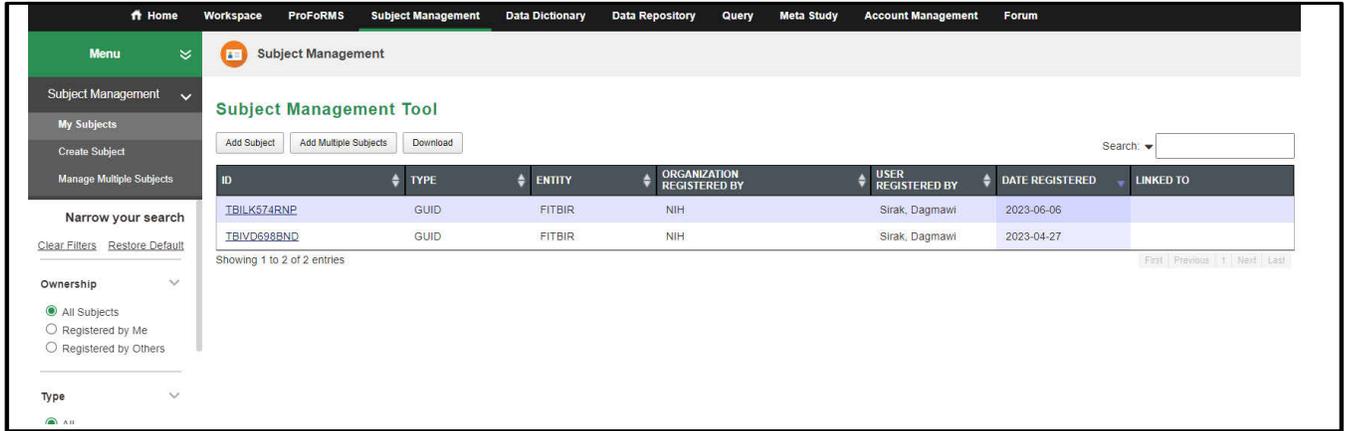
1. Log in and navigate to the **Workspace** screen where all modules you have access to are displayed.



2. Click the **Subject Management** module to enter the Subject Management Tool.

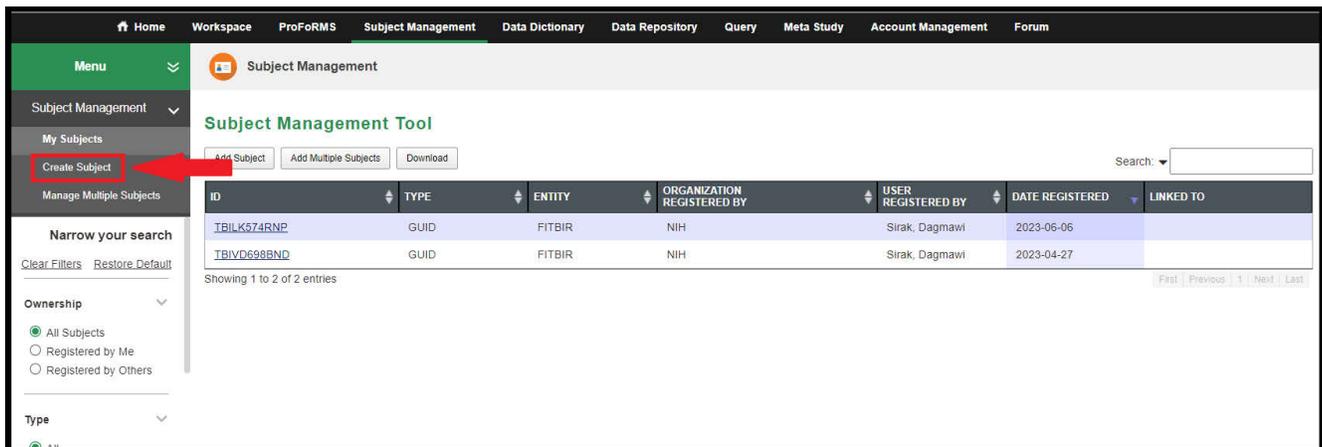


3. The **Subject Management** - My Subjects page opens where you can view/search your current subjects.



### 6.4.1 Creating GUIDs in the Subject Management Tool

1. Open the Subject Management Module.
2. Open the **Create Subject** on the left-side tool bar.



3. The Data Privacy user agreement may appear on the page. If it does. Read the agreement and Click **Accept** if you agree. The GUID Client will open and appears directly on the page.

**Data Privacy**

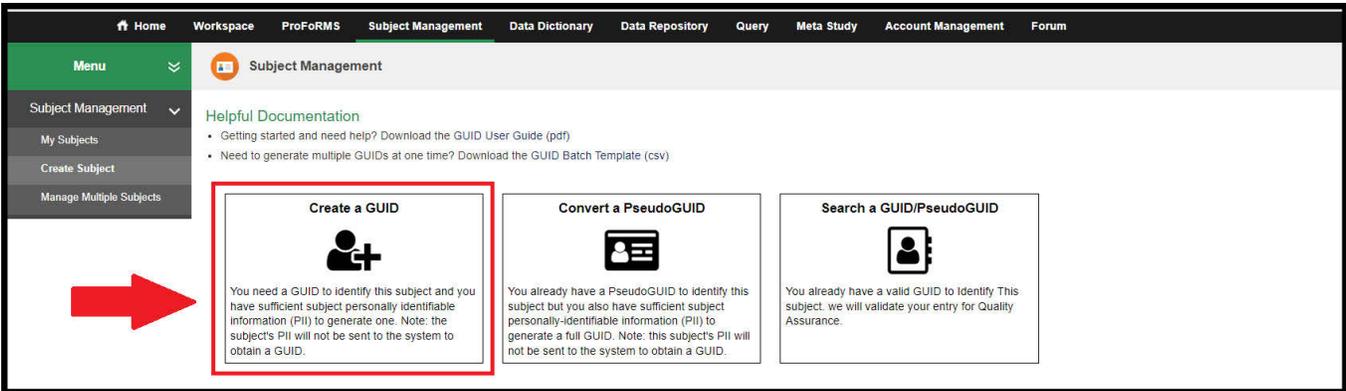
This system is a collaborative environment with privacy rules that pertain to the collection and display of imaging data. Before accessing and using this system, please ensure you familiarize yourself with our privacy rules available through the Data Access Request and supporting documentation.

The collection of this information is authorized under 42 U.S.C. 241, 242, 248, 281(a)(b)(1)(P) and 44 U.S.C. 3101. The primary use of this information is to facilitate medical research. This information may be disclosed to researchers for research purposes, and to system administrators for evaluation and data normalization.

Rules governing the submission of this information are based on the data-sharing rules defined in the Notice of Grant Award (NOGA). If you do not have a grant defining data sharing requirements, data submission is voluntary. Data entered into the system will be used solely for scientific and research purposes and is designed to further the understanding of the disease. Modification of information may be addressed by contacting your system administrator at [dcbbrics@nih.gov](mailto:dcbbrics@nih.gov). The significant system update information may be posted on the site as required

I AGREE
I DO NOT AGREE

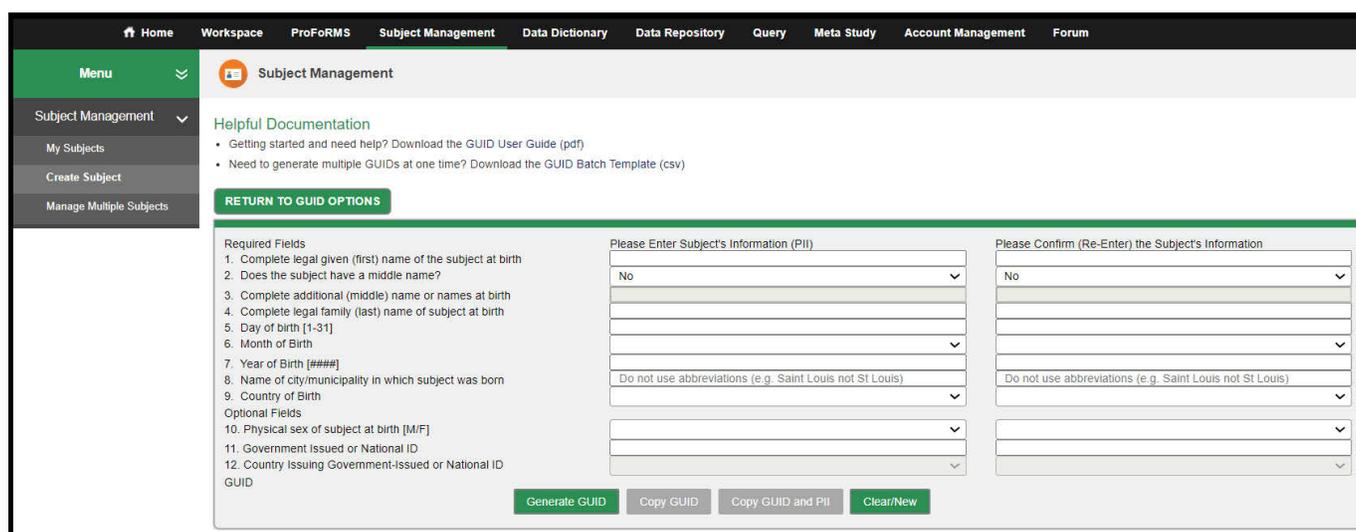
4. Click **Create a GUID**.



The screenshot shows the 'Subject Management' section of the BRICS interface. A red arrow points to the 'Create a GUID' button, which is highlighted with a red border. The button contains an icon of a person with a plus sign. Below the button, the text reads: 'You need a GUID to identify this subject and you have sufficient subject personally identifiable information (PII) to generate one. Note: the subject's PII will not be sent to the system to obtain a GUID.'

Other options visible include 'Convert a PseudoGUID' and 'Search a GUID/PseudoGUID'.

- The **GUID Client** will open directly in the browser on the page. **Enter the participant's information (Subject's Personal Identifiable Information (PII))** into the appropriate fields. To ensure the information provided is accurate, the system requires duplicate data entry. Re-enter the **Subject's Personal Identifiable Information (PII)** to confirm the subject's information.



The screenshot shows the 'Subject Management' page in the BRICS system. The page has a navigation menu on the left with options like 'Home', 'Workspace', 'ProFORMS', 'Subject Management', 'Data Dictionary', 'Data Repository', 'Query', 'Meta Study', 'Account Management', and 'Forum'. The main content area is titled 'Subject Management' and includes 'Helpful Documentation' links and a 'RETURN TO GUID OPTIONS' button. The form is divided into three columns: 'Required Fields', 'Please Enter Subject's Information (PII)', and 'Please Confirm (Re-Enter) the Subject's Information'. The 'Required Fields' list includes: 1. Complete legal given (first) name of the subject at birth, 2. Does the subject have a middle name?, 3. Complete additional (middle) name or names at birth, 4. Complete legal family (last) name of subject at birth, 5. Day of birth [1-31], 6. Month of Birth, 7. Year of Birth [####], 8. Name of city/municipality in which subject was born, 9. Country of Birth, 10. Physical sex of subject at birth [M/F], 11. Government issued or National ID, and 12. Country Issuing Government-Issued or National ID GUID. The 'Please Enter Subject's Information (PII)' column contains dropdown menus for 'No' and 'Do not use abbreviations (e.g. Saint Louis not St Louis)', and text input fields for names and birth date. The 'Please Confirm (Re-Enter) the Subject's Information' column contains identical dropdowns and text input fields for confirmation. At the bottom of the form are buttons for 'Generate GUID', 'Copy GUID', 'Copy GUID and PII', and 'Clear/New'.

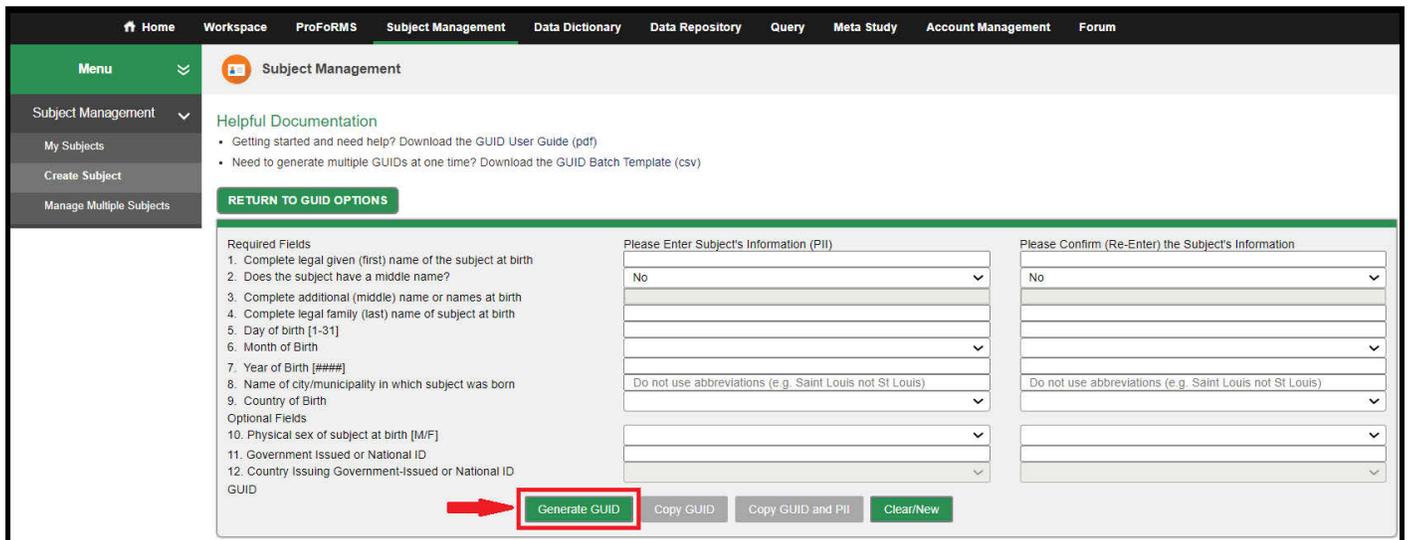
**The required field names necessary to obtain a valid GUID are listed below:**

- Complete legal given (first) name of the subject at birth
- Select YES if the subject DOES HAVE a Middle Name, NO otherwise
- Complete additional (middle) name or names at birth
- Complete legal family (last) name of subject at birth
- Day of birth [1—31]
- Month of birth [January-December]
- Year of birth [####]
- Name of city/municipality in which subject was born
- Country of birth

**The following are additional fields that can be used, but are not required:**

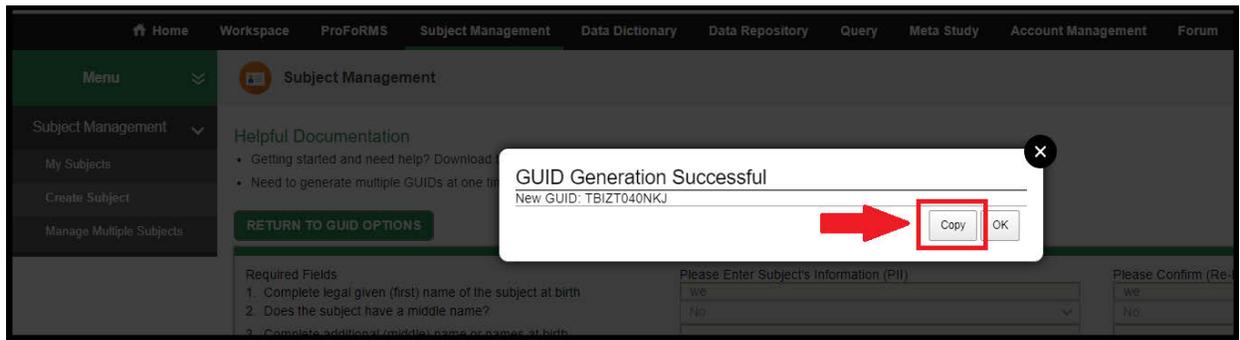
- Physical sex of subject at birth [Male/Female]
- Government Issued or National ID number
- Name of the country issuing the Government or National ID
- Organization/Cohort Association

6. To register and obtain the GUID, complete the following steps, starting in the left column:
  - a) Enter in the complete legal given (first) name of subject at birth;
  - b) Select Yes or No depending on whether or not the subject has a middle name. If yes, enter information in field 3;
  - c) Complete the required fields 4-9;
  - d) If information is available, complete the optional fields 10-12. Enter the subject's physical sex at birth into #10 field, the government issued or national ID number into #11 field (note that the list box in #12 field becomes available once data is entered into #11);
  - e) Select the country of issued ID from the list provided;
  - f) For PDBP only, select a value in the "Organization/Cohort Association" (field #13) to associate the GUID with a PDBP study, cohort, or other defined study component;
  - g) Enter the same information into the right column of the dialog box
  
7. After inputting the participant's PII into both sets of fields, click the **Generate GUID** button. Note: Spaces, hyphens and apostrophes can be used in the non-numeric GUID fields in the dialog box and are stripped silently by the application.

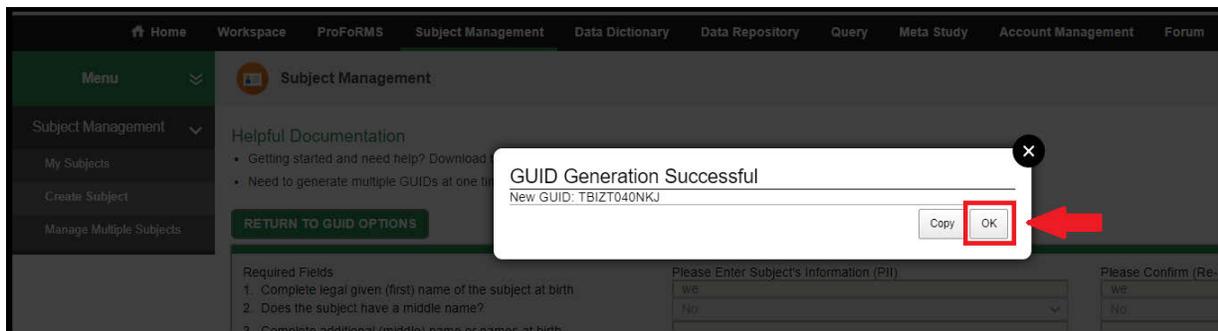


The screenshot shows the 'Subject Management' interface with a navigation menu on the left and a main content area. The main content area is titled 'Subject Management' and includes a 'Helpful Documentation' section with links to the GUID User Guide and GUID Batch Template. Below this is a 'RETURN TO GUID OPTIONS' button. The main form is divided into three columns: 'Required Fields', 'Please Enter Subject's Information (PII)', and 'Please Confirm (Re-Enter) the Subject's Information'. The 'Required Fields' column lists 12 fields, including name, birth date, sex, and ID number. The 'Please Enter Subject's Information (PII)' column contains input fields for these fields, with a dropdown for 'Country of Birth' and a note to 'Do not use abbreviations (e.g. Saint Louis not St Louis)'. The 'Please Confirm (Re-Enter) the Subject's Information' column contains corresponding input fields for confirmation. At the bottom of the form, there are four buttons: 'Generate GUID' (highlighted with a red box and a red arrow), 'Copy GUID', 'Copy GUID and PII', and 'Clear/New'.

8. To copy the new GUID, you must press the “**Copy**” button to copy the GUID to the Clipboard from where you may paste the new GUID. **Note:** A Clipboard is a location in memory where the system saves information copied.



9. A popup window with the GUID information will appear if there was a successful GUID generation. Click the **OK** button to exit the dialog box.

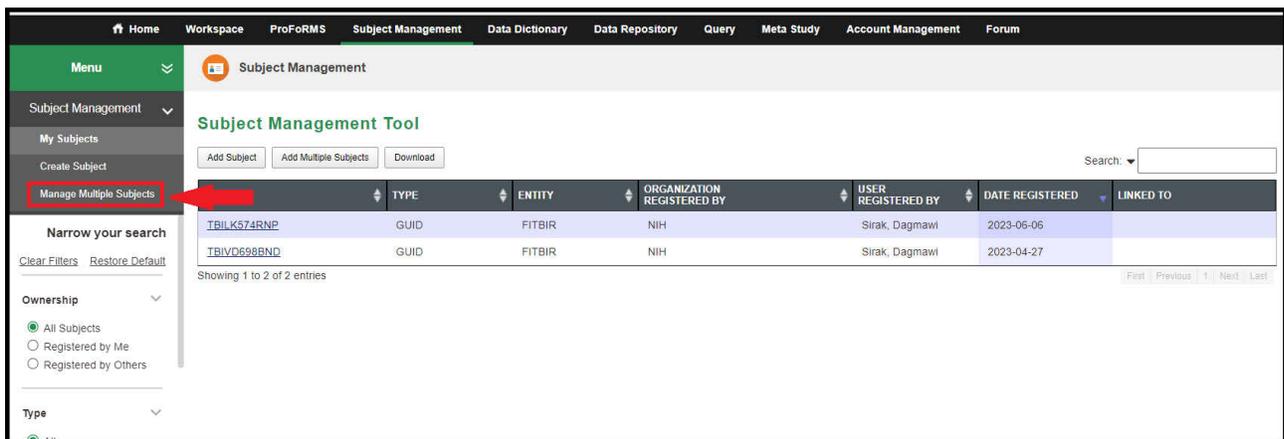


## 6.4.2 Creating Multiple GUIDs Using Batch CSV

The batch capability allows a user to create multiple GUIDs at a time with the option of checking for similar already-entered PII. In order to create multiple GUIDs, you must download and use the GUID batch .csv template.

**To Generate GUIDs for multiple Subjects using batch .csv:** Perform the following actions:

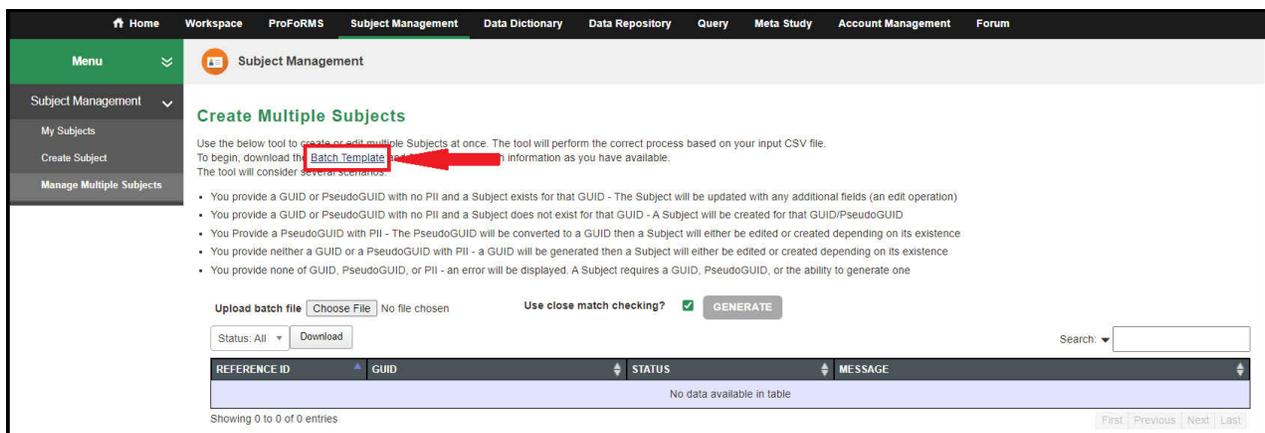
1. Open the Subject Management Module.
2. Open the **Manage Multiple Subjects** on the left-side tool bar.



The screenshot shows the 'Subject Management Tool' interface. The left sidebar has a menu with 'Manage Multiple Subjects' highlighted in red. The main area displays a table of subjects with columns: TYPE, ENTITY, ORGANIZATION REGISTERED BY, USER REGISTERED BY, DATE REGISTERED, and LINKED TO. Two rows are visible:

TYPE	ENTITY	ORGANIZATION REGISTERED BY	USER REGISTERED BY	DATE REGISTERED	LINKED TO
GUID	FITBIR	NIH	Sirak, Dagmawi	2023-06-06	
GUID	FITBIR	NIH	Sirak, Dagmawi	2023-04-27	

3. Click the [Batch Template \(csv\)](#) to download the GUID Batch template to your local machine.



The screenshot shows the 'Create Multiple Subjects' interface. The main area contains instructions and a list of bullet points. A red arrow points to the 'Batch Template' link in the instructions. Below the instructions, there is a section for uploading a batch file and a 'GENERATE' button.

Use the below tool to **create or edit multiple** Subjects at once. The tool will perform the correct process based on your input CSV file. To begin, download the **Batch Template** for the information as you have available. The tool will consider **several scenarios**:

- You provide a GUID or PseudoGUID with no PII and a Subject exists for that GUID - The Subject will be updated with any additional fields (an edit operation)
- You provide a GUID or PseudoGUID with no PII and a Subject does not exist for that GUID - A Subject will be created for that GUID/PseudoGUID
- You Provide a PseudoGUID with PII - The PseudoGUID will be converted to a GUID then a Subject will either be edited or created depending on its existence
- You provide neither a GUID or a PseudoGUID with PII - a GUID will be generated then a Subject will either be edited or created depending on its existence
- You provide none of GUID, PseudoGUID, or PII - an error will be displayed. A Subject requires a GUID, PseudoGUID, or the ability to generate one

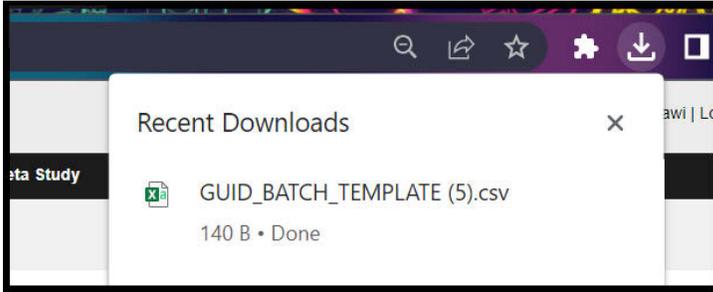
Upload batch file:  No file chosen      Use close match checking?

Status: All       Search:

REFERENCE ID	GUID	STATUS	MESSAGE
No data available in table			

Showing 0 to 0 of 0 entries

4. The **GUID\_BATCH\_TEMPLATE** download appears on the top right of your browser (i.e Chrome, Firefox, Edge). Click on the download to open the document.

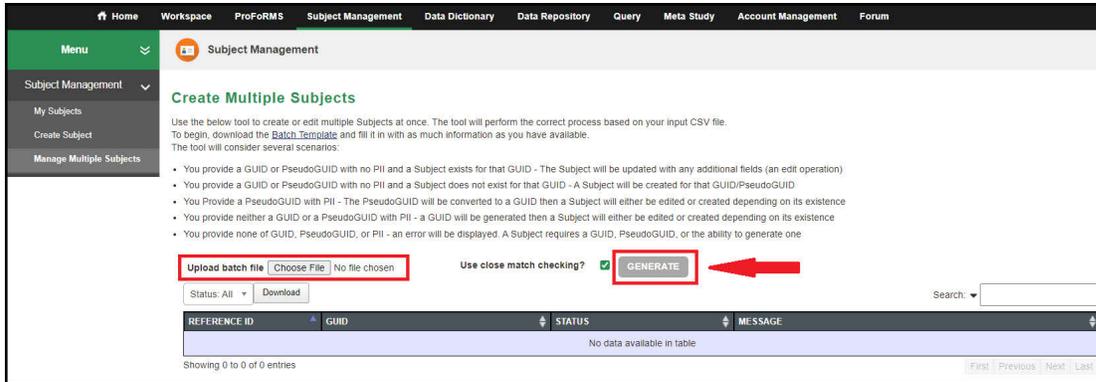


5. Upon successful download of the .csv template, Open the template and enter the participant’s information into the proper columns. For descriptions of column headers, please refer to Section [6.3.1 PII Fields](#) above.

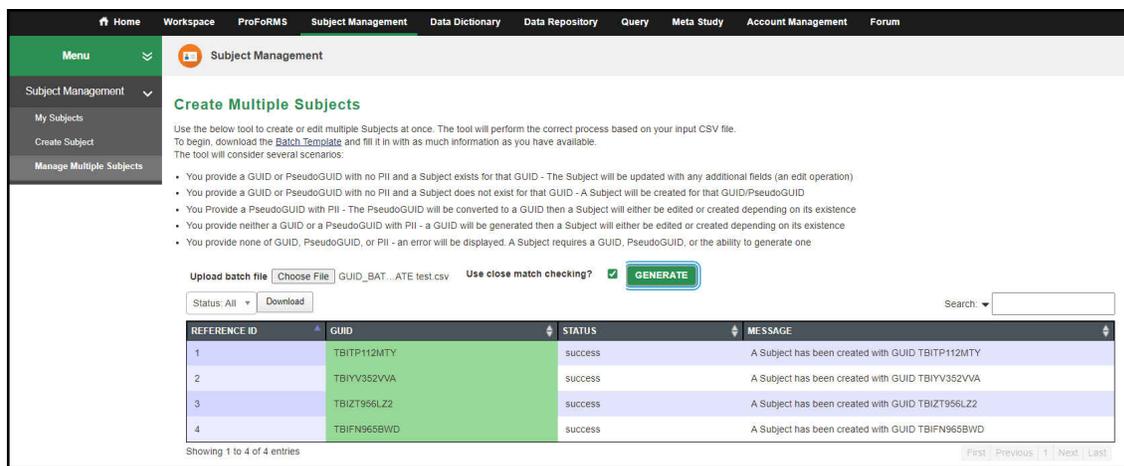
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	REFERENCE_ID	GUID	FIRST_NAME	MIDDLE_NAME	LAST_NAME	SUBJECT_HAS_MIDDLE_NAME	MOB	DOB	YOB	CITY_OF_BIRTH	COUNTRY_OF_BIRTH	SEX	GIID	GIIDCountry	
2		1	Joseph		Smith	No		3	4	1989					
3		2	Hannah	Lee	Mulligan	Yes		5	3	2002					
4		3	Allen		Thomas	No		11	15	1970					
5		4	Josh	Horatio	Cortez	Yes		2	20	1992					
6															

- ❖ Each row contains (1) participant’s information
- ❖ The REFERENCE\_ID (in cell A2) may be any alphanumeric identifier but must be unique within this batch. This ID will be provided along with the GUID after the batch process completes to ensure the proper GUID is associated with its input PII
- ❖ For MOB, use a numeric value (1-12)
- ❖ For COUNTRY\_OF\_BIRTH and GIIDCOUNTRY, please use the country codes listed in Appendix 6-A of the module. For United States, use US.
- ❖ GIID and GIIDCOUNTRY [Optional]
- ❖ For GIID, if Country issuing the ID is the United States, please submit data in this format ###-##-####
- ❖ Note: The “Organization/Cohort Association” field is not available for use when generating GUIDs using the batch GUID template. This field is only available when generating a GUID using the GUID client.
- ❖ Save the template in CSV format.

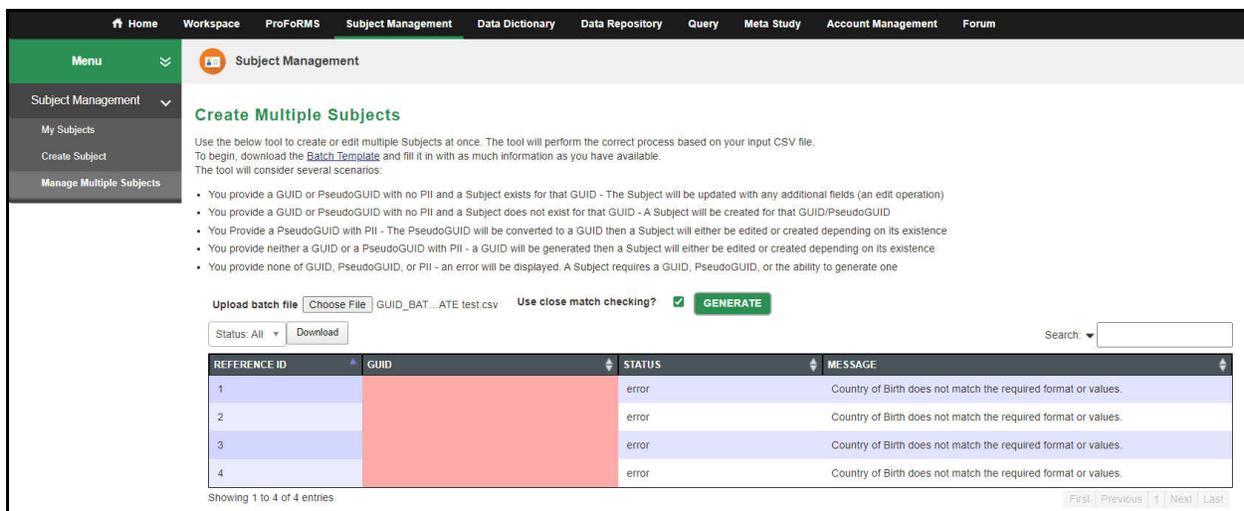
6. Select **Choose File** and upload the desired .csv file containing the subject(s) information. Then click the **Generate** button



7. After choosing the desired .csv and clicking generate, the process will begin. You will see the generated GUID's appear in the table and the user can download them.

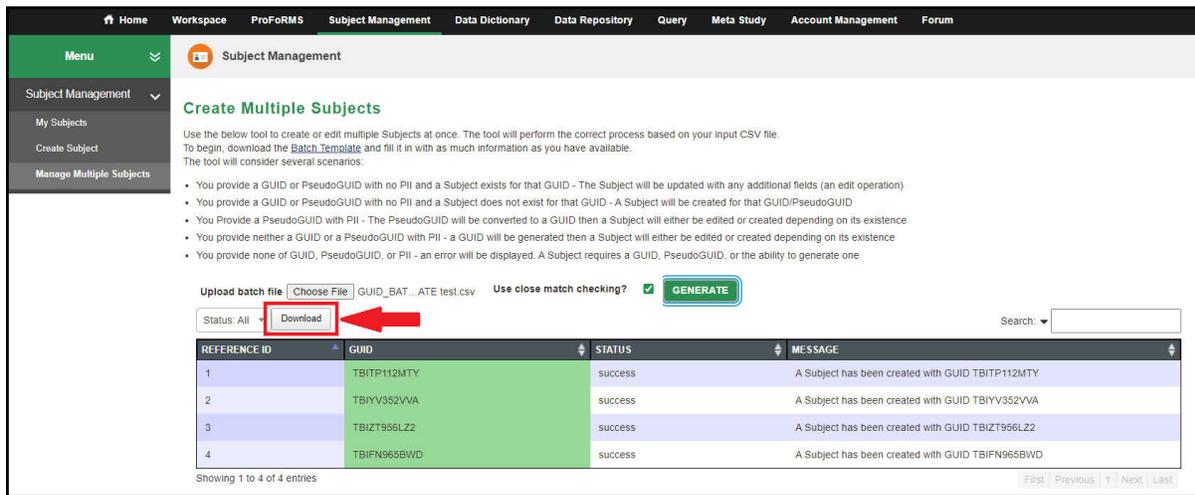


**NOTE:** Errors that occurred during processing will appear in the table below



**NOTE:** If subsequent requests for multiple GUIDs are sent, the required wait time between sending each GUID request containing 50 participants is 30 seconds. Reference the Status field for additional details and confirmation that the .csv file selected uploaded correctly.

- To obtain a full report of errors, potential matches, and/or other information pertaining to the GUID generation process, click the **Download** button.



**Create Multiple Subjects**

Use the below tool to create or edit multiple Subjects at once. The tool will perform the correct process based on your input CSV file. To begin, download the [Batch Template](#) and fill it in with as much information as you have available. The tool will consider several scenarios:

- You provide a GUID or PseudoGUID with no PII and a Subject exists for that GUID - The Subject will be updated with any additional fields (an edit operation)
- You provide a GUID or PseudoGUID with no PII and a Subject does not exist for that GUID - A Subject will be created for that GUID/PseudoGUID
- You Provide a PseudoGUID with PII - The PseudoGUID will be converted to a GUID then a Subject will either be edited or created depending on its existence
- You provide neither a GUID or a PseudoGUID with PII - a GUID will be generated then a Subject will either be edited or created depending on its existence
- You provide none of GUID, PseudoGUID, or PII - an error will be displayed. A Subject requires a GUID, PseudoGUID, or the ability to generate one

Upload batch file:  GUID\_BAT...ATE.test.csv Use close match checking?

Status: All  Search:

REFERENCE ID	GUID	STATUS	MESSAGE
1	TBITP112MTY	success	A Subject has been created with GUID TBITP112MTY
2	TBIYV352VVA	success	A Subject has been created with GUID TBIYV352VVA
3	TBIZT956LZ2	success	A Subject has been created with GUID TBIZT956LZ2
4	TBIFN965BWD	success	A Subject has been created with GUID TBIFN965BWD

Showing 1 to 4 of 4 entries First Previous 1 Next Last

- Save the .csv report file, which will include the following default filename prefix: “output\_guid.” The GUID output file will provide a list of successfully generated GUIDs along with errors and notations:

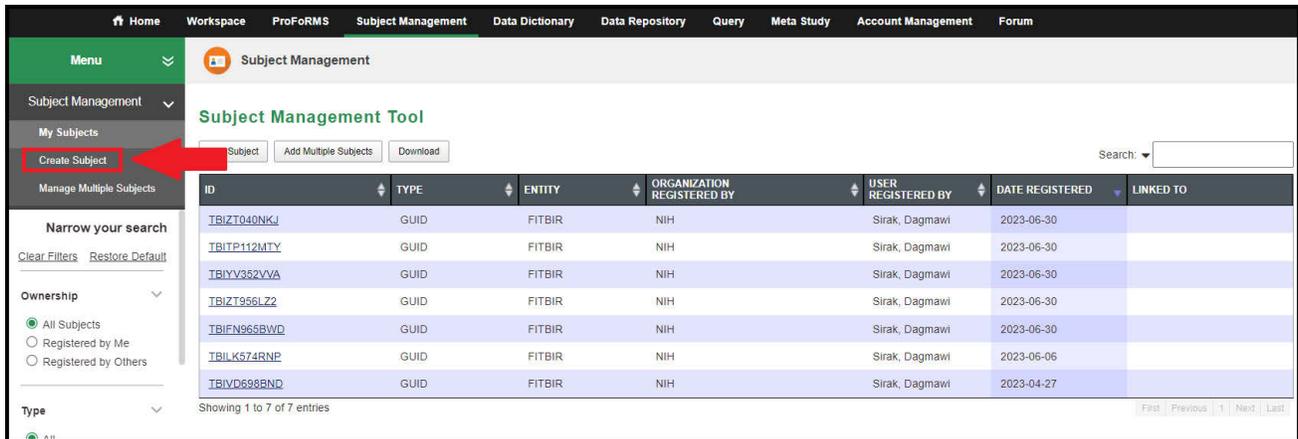
A	B	C	D
referenceId	guid	serverShortName	notes
1			A close match was found: Month of Birth. Current value: 11
2	TBIHP337FWXVC	FITBIR	
3	TBIHU206FYKXZ	FITBIR	
4	TBINE514UGTLP	FITBIR	

**NOTE:** If you receive a “close match was found” note, but the subject information provided is accurate, retry the upload using the **Create Multiple GUIDs (No Close Match Checking)** option in the Functions menu.

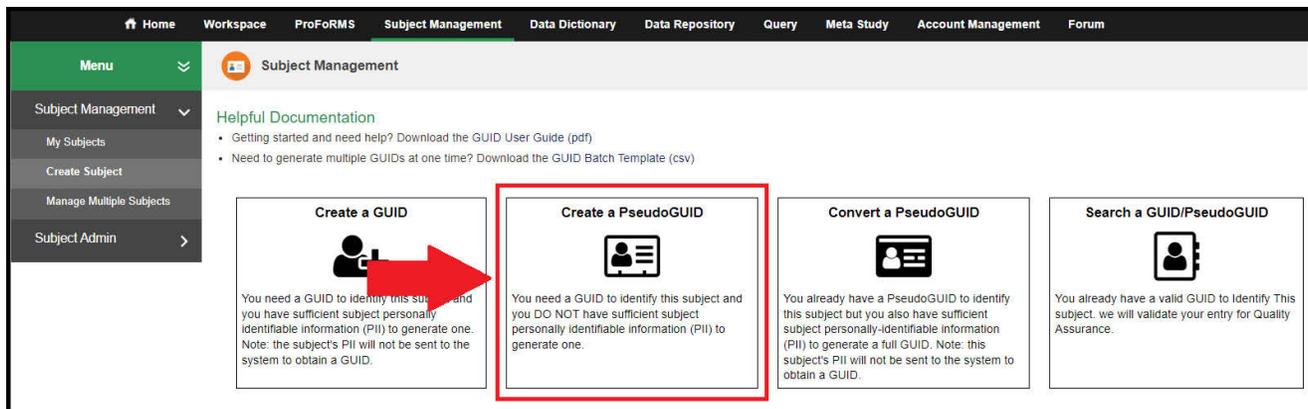
### 6.4.3 Generate a Pseudo GUID

To Generate a Pseudo-GUID: Perform the following actions:

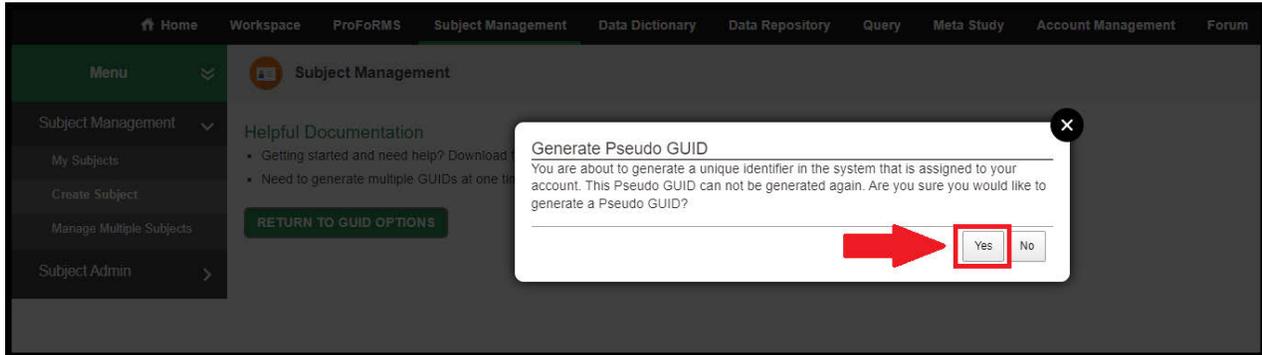
1. Navigate to the **Create Subject** page (Refer to 6.4.1 steps 1-2).



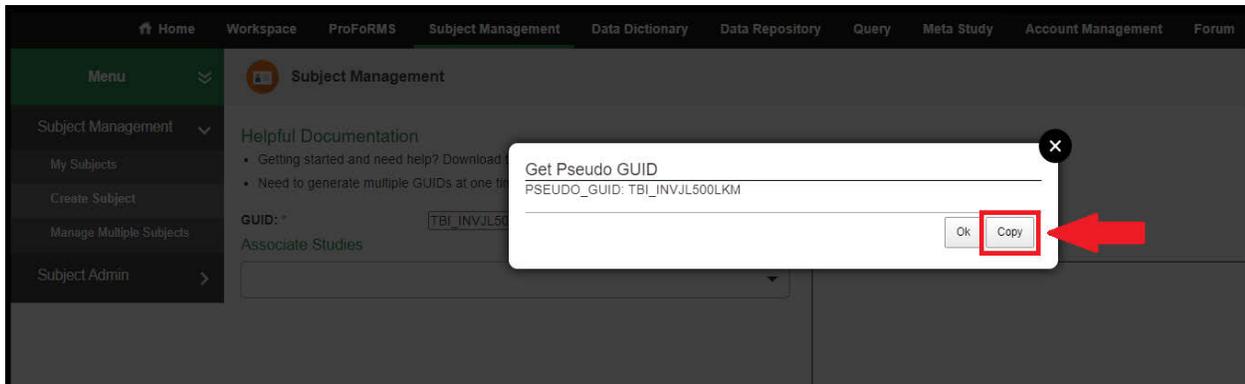
2. Select **Create a Pseudo GUID** as shown below.



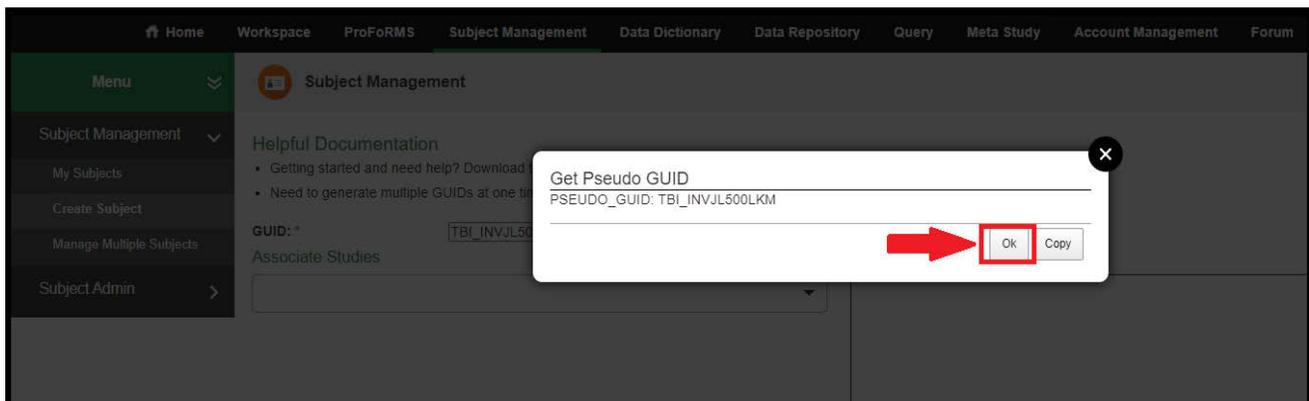
- The **Generate Pseudo GUID** dialog box appears with the following message: **“You are about to generate a unique identifier in the system that is assigned to your account. This Pseudo GUID can not be generated again. Are you sure you would like to generate a Pseudo GUID?”** Click the **Yes** button to generate the Pseudo-GUID.



- The **Get Pseudo GUID** dialog box appears with the Pseudo GUID. Click the **Copy** button to “Copy” the Pseudo GUID to the Clipboard from where you may paste the Pseudo GUID from. **Note:** Only one Pseudo GUID can be saved to the clipboard at a time.



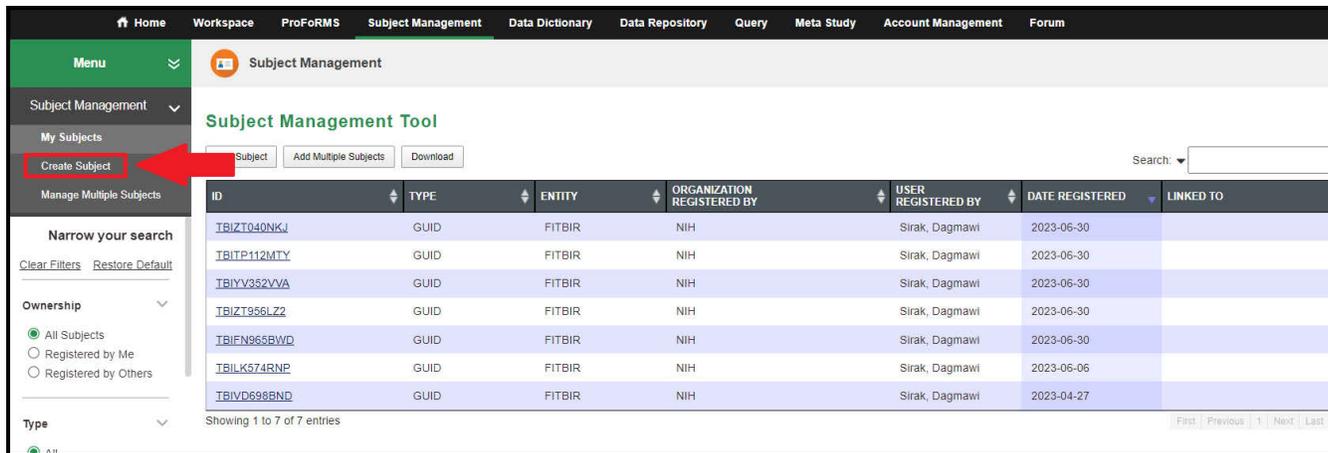
- Click the **OK** button to exit Get Pseudo GUID dialog box.



## 6.4.4 Converting Pseudo GUIDs to valid GUID

To Convert a Pseudo-GUID to valid GUID: Perform the following actions:

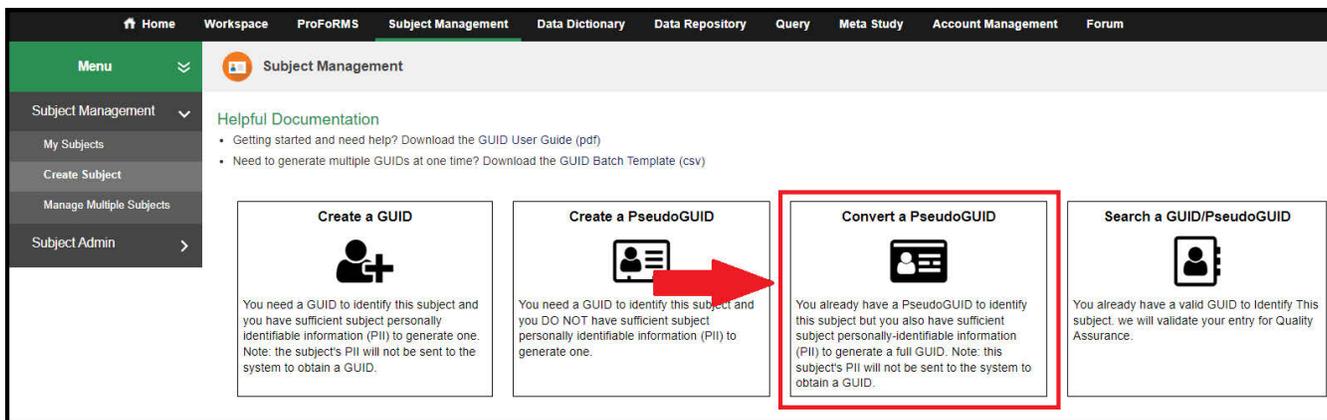
1. Navigate to the **Create Subject** page (Refer to 6.4.1 steps 1-2).



The screenshot shows the 'Subject Management Tool' interface. The left sidebar contains a 'Menu' section with 'Subject Management' expanded. Under 'My Subjects', the 'Create Subject' option is highlighted with a red box and a red arrow pointing to it. The main content area displays a table of subjects with columns for ID, TYPE, ENTITY, ORGANIZATION REGISTERED BY, USER REGISTERED BY, DATE REGISTERED, and LINKED TO. The table contains 7 entries, all of type 'GUID'.

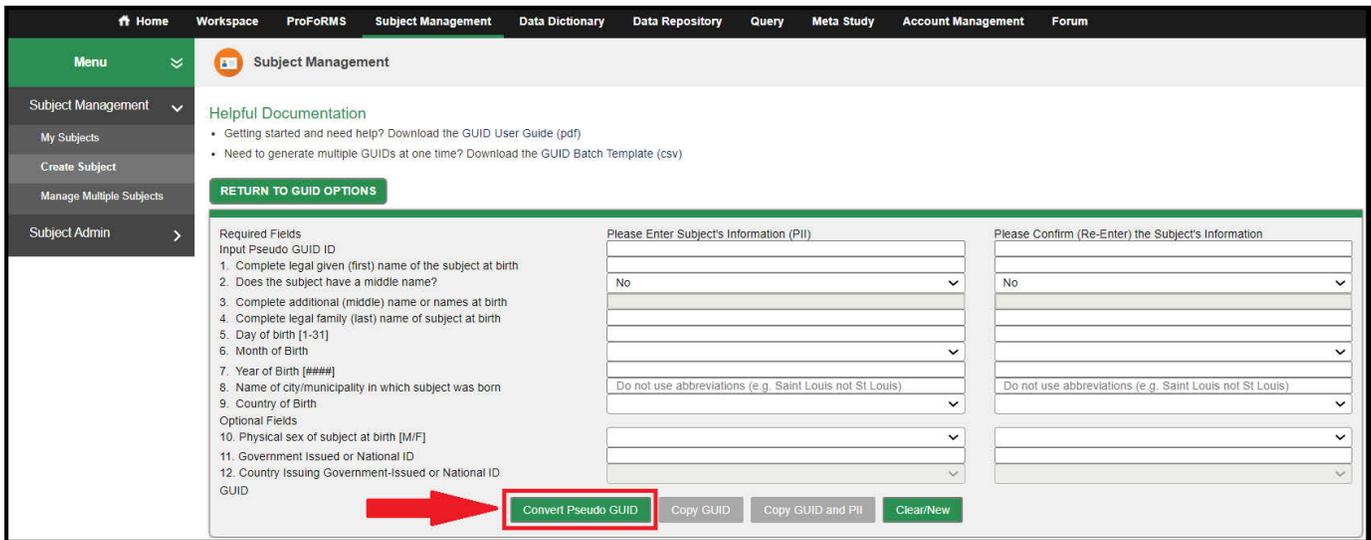
ID	TYPE	ENTITY	ORGANIZATION REGISTERED BY	USER REGISTERED BY	DATE REGISTERED	LINKED TO
TBIZT040NKJ	GUID	FITBIR	NIH	Sirak, Dagnawi	2023-06-30	
TBIP112MTY	GUID	FITBIR	NIH	Sirak, Dagnawi	2023-06-30	
TBIYV352VVA	GUID	FITBIR	NIH	Sirak, Dagnawi	2023-06-30	
TBIZT956LZZ	GUID	FITBIR	NIH	Sirak, Dagnawi	2023-06-30	
TBIFN965BWD	GUID	FITBIR	NIH	Sirak, Dagnawi	2023-06-30	
TBILK574RNF	GUID	FITBIR	NIH	Sirak, Dagnawi	2023-06-06	
TBIVD698BND	GUID	FITBIR	NIH	Sirak, Dagnawi	2023-04-27	

2. Select the **Convert a PseudoGUID** option.

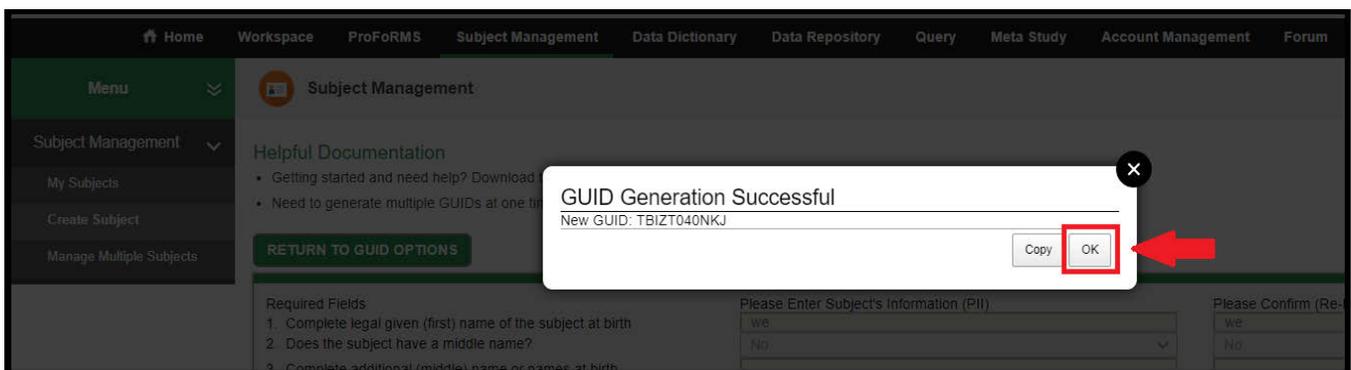


The screenshot shows the 'Helpful Documentation' section of the Subject Management Tool. Four options are presented in a grid: 'Create a GUID', 'Create a PseudoGUID', 'Convert a PseudoGUID', and 'Search a GUID/PseudoGUID'. The 'Convert a PseudoGUID' option is highlighted with a red box and a red arrow pointing to it. The text for 'Convert a PseudoGUID' reads: 'You already have a PseudoGUID to identify this subject but you also have sufficient subject personally-identifiable information (PII) to generate a full GUID. Note: this subject's PII will not be sent to the system to obtain a GUID.'

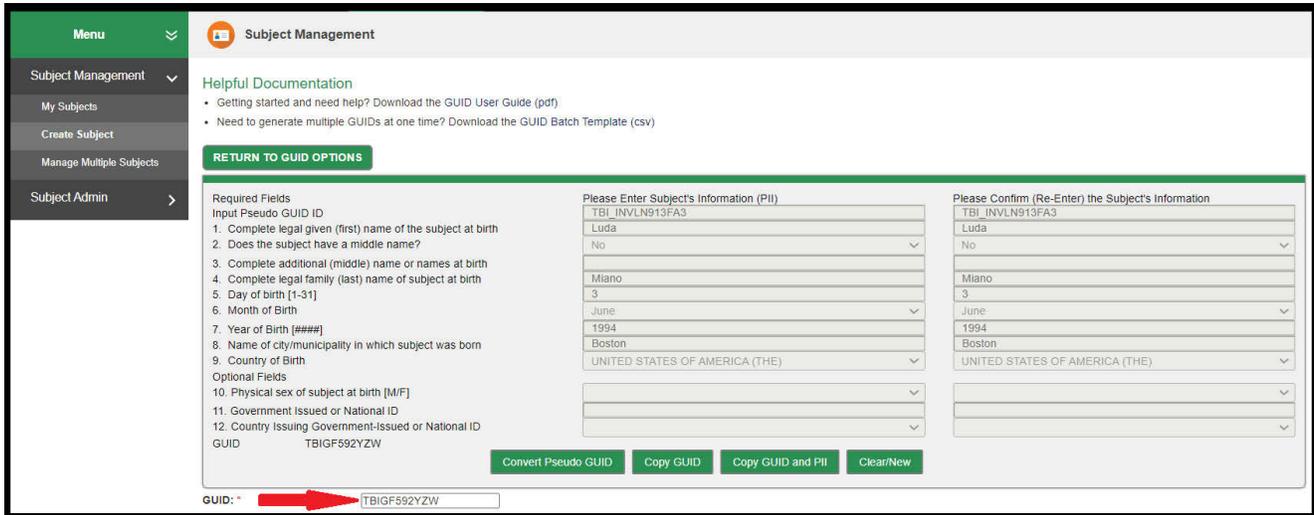
- The **Convert Pseudo GUID to GUID** dialog box appears. Fill in the **Input Pseudo GUID ID** field with your pseudo GUID ID then fill out the rest of the required information.
- Click **Convert Pseudo GUID** button



- The **GUID** generation dialog window appears with the newly converted GUID. Click **Copy** to copy the GUID or **OK** to close the dialog box.



**NOTE:** If you accidentally click **OK** and close the **GUID Generation Successful** dialog box, you can reference and/or copy the generated GUID from the GUID Client. The newly generated GUID will appear in the **GUID** field and can be copied using the **Copy GUID** button.



The screenshot shows the 'Subject Management' interface. On the left is a navigation menu with options: Menu, Subject Management, My Subjects, Create Subject, Manage Multiple Subjects, and Subject Admin. The main content area is titled 'Subject Management' and includes 'Helpful Documentation' with links to a user guide and a batch template. A 'RETURN TO GUID OPTIONS' button is present. The main form is divided into three columns:

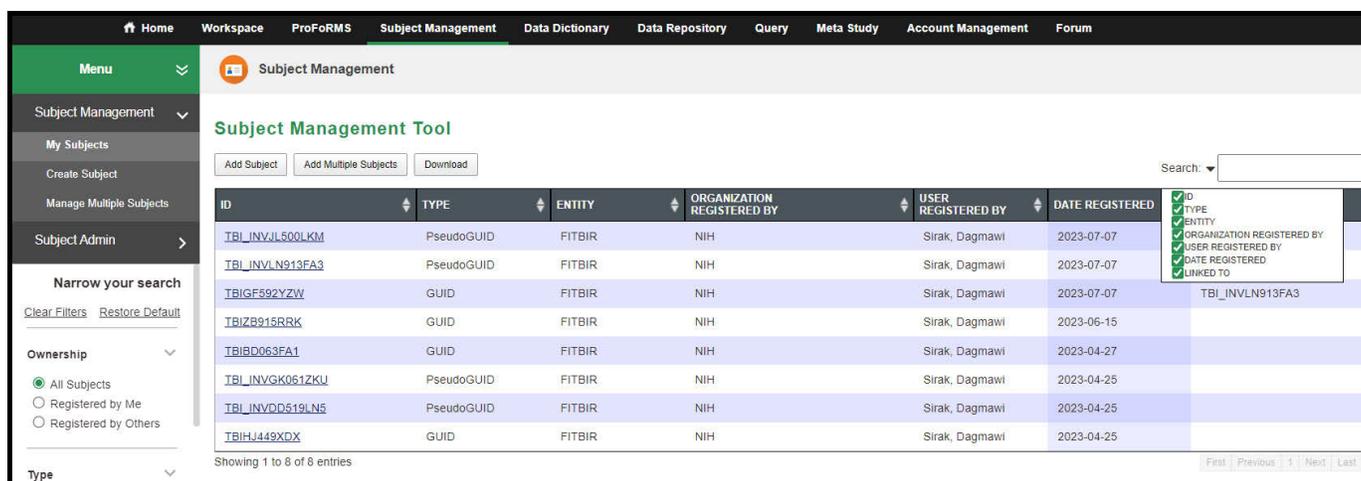
- Required Fields:**
  - Input Pseudo GUID ID: TBI\_INVLN913FA3
  - 1. Complete legal given (first) name of the subject at birth: Luda
  - 2. Does the subject have a middle name?: No
  - 3. Complete additional (middle) name or names at birth: Milano
  - 4. Complete legal family (last) name of subject at birth: 3
  - 5. Day of birth [1-31]: June
  - 6. Month of Birth: 1994
  - 7. Year of Birth [####]: Boston
  - 8. Name of city/municipality in which subject was born: UNITED STATES OF AMERICA (THE)
  - 9. Country of Birth: [dropdown]
  - 10. Physical sex of subject at birth [M/F]: [dropdown]
  - 11. Government Issued or National ID: [dropdown]
  - 12. Country Issuing Government-Issued or National ID: [dropdown]
- Optional Fields:**
  - GUID: TBIGF592YZW
- Buttons:** Convert Pseudo GUID, Copy GUID, Copy GUID and PII, Clear/New

At the bottom left, a 'GUID:' label is followed by a text input field containing 'TBIGF592YZW', with a red arrow pointing to the text.

## 6.4.5 My Subjects/GUIDs

**To View** My Subjects/GUIDs: Perform the following actions:

1. Open the **Subject Management** from the workspace and it will load the **My Subjects** page
2. Here you can use the search box to filter your subjects. Select the fields in which you would like to filter (by default all will be selected) and type your search into the search box. Your results will filter as you type.



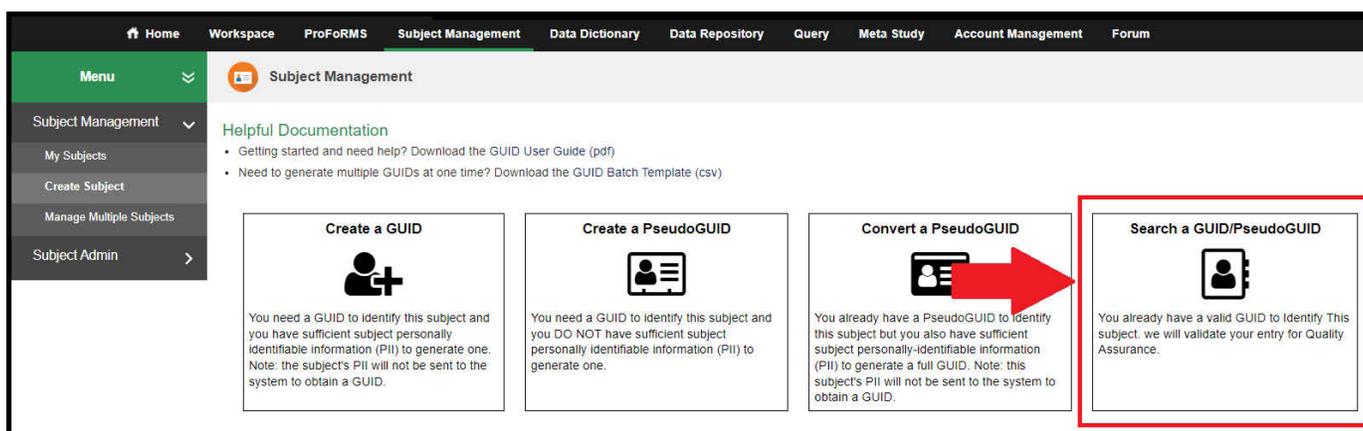
The screenshot displays the 'Subject Management Tool' interface. At the top, there is a navigation bar with options like Home, Workspace, ProFoRMS, Subject Management, Data Dictionary, Data Repository, Query, Meta Study, Account Management, and Forum. The 'Subject Management' section is active, showing a 'Subject Management Tool' with buttons for 'Add Subject', 'Add Multiple Subjects', and 'Download'. A search box is located on the right. Below the search box is a table with the following columns: ID, TYPE, ENTITY, ORGANIZATION REGISTERED BY, USER REGISTERED BY, DATE REGISTERED, and a legend for the ID column. The table contains 8 rows of subject data. On the left, there is a 'Narrow your search' section with 'Ownership' filters: 'All Subjects' (selected), 'Registered by Me', and 'Registered by Others'. At the bottom, it says 'Showing 1 to 8 of 8 entries' and has pagination controls: 'First | Previous | 1 | Next | Last'.

ID	TYPE	ENTITY	ORGANIZATION REGISTERED BY	USER REGISTERED BY	DATE REGISTERED	
<a href="#">TBI_INVJL500LKM</a>	PseudoGUID	FITBIR	NIH	Sirak, Dagmawi	2023-07-07	
<a href="#">TBI_INVLN913FA3</a>	PseudoGUID	FITBIR	NIH	Sirak, Dagmawi	2023-07-07	
<a href="#">TBIGF892YZW</a>	GUID	FITBIR	NIH	Sirak, Dagmawi	2023-07-07	TBI_INVLN913FA3
<a href="#">TBIZ8915RRK</a>	GUID	FITBIR	NIH	Sirak, Dagmawi	2023-06-15	
<a href="#">TBIID063FA1</a>	GUID	FITBIR	NIH	Sirak, Dagmawi	2023-04-27	
<a href="#">TBI_INVGK061ZKU</a>	PseudoGUID	FITBIR	NIH	Sirak, Dagmawi	2023-04-25	
<a href="#">TBI_INVDD619LN5</a>	PseudoGUID	FITBIR	NIH	Sirak, Dagmawi	2023-04-25	
<a href="#">TBIHJ449XDX</a>	GUID	FITBIR	NIH	Sirak, Dagmawi	2023-04-25	

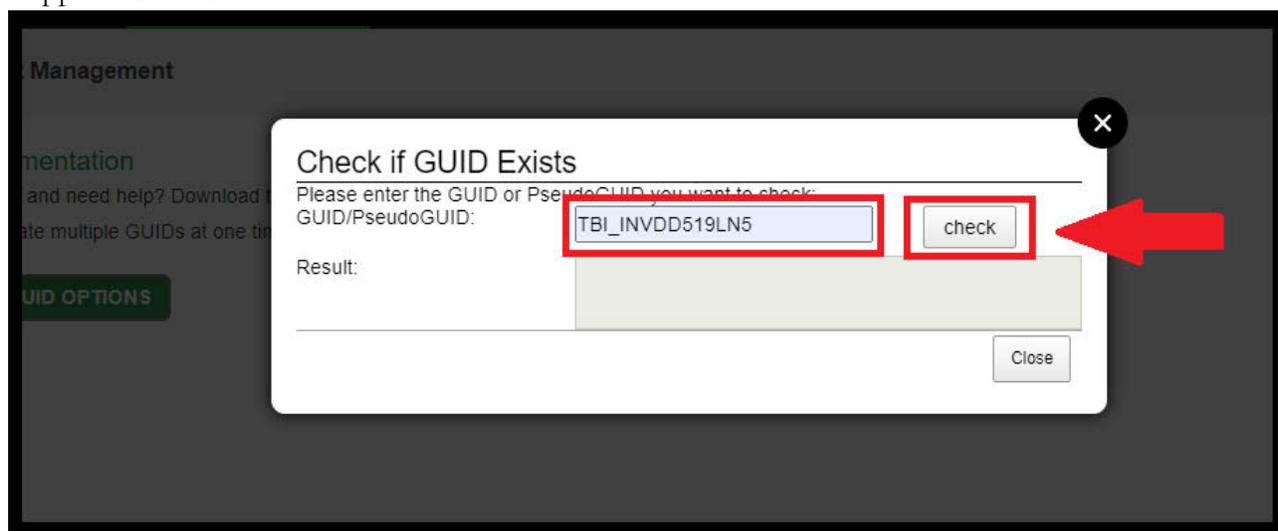
## 6.4.6 Searching if Subject/GUID (or Pseudo GUID) Exists

To Check if a GUID (or Pseudo GUID) already exists: Perform the following actions:

1. Navigate to the **Create Subject** page (Refer to 6.4.1 steps 1-2). Select **Search GUID/PseudoGUID** as shown below.



2. The **Check if GUID Exists on the Server** dialog box appears. Enter the GUID or Pseudo GUID in the GUID/PseudoGUID field, and click the **Check** button. The result appears in the Result field.



## 6.5 Accessing the Multi-Tenant GUID Server

Researchers participating in the Multi-Tenant GUID server who want access to another Entity's GUIDs, need to initiate a request through the Entity's Accounts Module. Please contact a member of your designated Operations team for additional details.

## 6.6 APPENDIX 6A – COUNTRY CODES

Country	Country Code
UNITED STATES	US
AFGHANISTAN	AF
ÅLAND ISLANDS	AX
ALBANIA	AL
ALGERIA	DZ
AMERICAN SAMOA	AS
ANDORRA	AD
ANGOLA	AO
ANGUILLA	AI
ANTARCTICA	AQ
ANTIGUA AND BARBUDA	AG
ARGENTINA	AR
ARMENIA	AM
ARUBA	AW
AUSTRALIA	AU
AUSTRIA	AT
AZERBAIJAN	AZ
BAHAMAS	BS
BAHRAIN	BH
BANGLADESH	BD
BARBADOS	BB
BELARUS	BY
BELGIUM	BE
BELIZE	BZ
BENIN	BJ
BERMUDA	BM
BHUTAN	BT
BOLIVIA	BO
BONAIRE, SINT EUSTATIUS, SABA	BQ
BOSNIA AND HERZEGOVINA	BA
BOTSWANA	BW
BOUVET ISLAND	BV
BRAZIL	BR
BRITISH INDIAN OCEAN TERRITORY	IO
BRUNEI DARUSSALAM	BN
BULGARIA	BG

Country	Country Code
BURKINA FASO	BF
BURUNDI	BI
CAMBODIA	KH
CAMEROON	CM
CANADA	CA
CAPE VERDE	CV
CAYMAN ISLANDS	KY
CENTRAL AFRICAN REPUBLIC	CF
CHAD	TD
CHILE	CL
CHINA	CN
CHRISTMAS ISLAND	CX
COCOS (KEELING) ISLANDS	CC
COLOMBIA	CO
COMOROS	KM
CONGO	CG
CONGO, THE DEMOCRATIC REPUBLIC OF THE	CD
COOK ISLANDS	CK
COSTA RICA	CR
CÔTE D'IVOIRE	CI
CROATIA	HR
CUBA	CU
CYPRUS	CY
CZECH REPUBLIC	CZ
DENMARK	DK
DJIBOUTI	DJ
DOMINICA	DM
DOMINICAN REPUBLIC	DO
ECUADOR	EC
EGYPT	EG
EL SALVADOR	SV
EQUATORIAL GUINEA	GQ
ERITREA	ER
ESTONIA	EE
ETHIOPIA	ET
FALKLAND ISLANDS (MALVINAS)	FK
FAROE ISLANDS	FO
FIJI	FJ

Country	Country Code
FINLAND	FI
FRANCE	FR
FRENCH GUIANA	GF
FRENCH POLYNESIA	PF
FRENCH SOUTHERN TERRITORIES	TF
GABON	GA
GAMBIA	GM
GEORGIA	GE
GERMANY	DE
GHANA	GH
GIBRALTAR	GI
GREECE	GR
GREENLAND	GL
GRENADA	GD
GUADELOUPE	GP
GUAM	GU
GUATEMALA	GT
GUERNSEY	GG
GUINEA	GN
GUINEA-BISSAU	GW
GUYANA	GY
HAITI	HT
HEARD ISLAND AND MCDONALD ISLANDS	HM
HOLY SEE (VATICAN CITY STATE)	VA
HONDURAS	HN
HONG KONG	HK
HUNGARY	HU
ICELAND	IS
INDIA	IN
INDONESIA	ID
IRAN, ISLAMIC REPUBLIC OF	IR
IRAQ	IQ
IRELAND	IE
ISLE OF MAN	IM
ISRAEL	IL
ITALY	IT
JAMAICA	JM

Country	Country Code
JAPAN	JP
JERSEY	JE
JORDAN	JO
KAZAKHSTAN	KZ
KENYA	KE
KIRIBATI	KI
KOREA, DEMOCRATIC PEOPLE'S REPUBLIC OF	KP
KOREA, REPUBLIC OF	KR
KOSOVO	XK
KUWAIT	KW
KYRGYZSTAN	KG
LAO PEOPLE'S DEMOCRATIC REPUBLIC	LA
LATVIA	LV
LEBANON	LB
LESOTHO	LS
LIBERIA	LR
LIBYAN ARAB JAMAHIRIYA	LY
LIECHTENSTEIN	LI
LITHUANIA	LT
LUXEMBOURG	LU
MACAO	MO
MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	MK
MADAGASCAR	MG
MALAWI	MW
MALAYSIA	MY
MALDIVES	MV
MALI	ML
MALTA	MT
MARSHALL ISLANDS	MH
MARTINIQUE	MQ
MAURITANIA	MR
MAURITIUS	MU
MAYOTTE	YT
MEXICO	MX
MICRONESIA, FEDERATED STATES OF	FM
MOLDOVA, REPUBLIC OF	MD
MONACO	MC
MONGOLIA	MN

Country	Country Code
MONTENEGRO	ME
MONTSERRAT	MS
MOROCCO	MA
MOZAMBIQUE	MZ
MYANMAR	MM
NAMIBIA	NA
NAURU	NR
NEPAL	NP
NETHERLANDS	NL
NETHERLANDS ANTILLES	AN
NEW CALEDONIA	NC
NEW ZEALAND	NZ
NICARAGUA	NI
NIGER	NE
NIGERIA	NG
NIUE	NU
NORFOLK ISLAND	NF
NORTHERN MARIANA ISLANDS	MP
NORWAY	NO
OMAN	OM
PAKISTAN	PK
PALAU	PW
PALESTINIAN TERRITORY, OCCUPIED	PS
PANAMA	PA
PAPUA NEW GUINEA	PG
PARAGUAY	PY
PERU	PE
PHILIPPINES	PH
PITCAIRN	PN
POLAND	PL
PORTUGAL	PT
PUERTO RICO	PR
RÉUNION	RE
ROMANIA	RO
RUSSIAN FEDERATION	RU
RWANDA	RW
SAINT BARTHÉLEMY	BL

Country	Country Code
SAINT HELENA	SH
SAINT KITTS AND NEVIS	KN
SAINT LUCIA	LC
SAINT MARTIN	MF
SAINT PIERRE AND MIQUELON	PM
SAINT VINCENT AND THE GRENADINES	VC
SAMOA	WS
SAN MARINO	SM
SAO TOME AND PRINCIPE	ST
SAUDI ARABIA	SA
SENEGAL	SN
SERBIA	RS
SEYCHELLES	SC
SIERRA LEONE	SL
SINGAPORE	SG
SLOVAKIA	SK
SLOVENIA	SI
SOLOMON ISLANDS	SB
SOMALIA	SO
SOUTH AFRICA	ZA
SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS	GS
SPAIN	ES
SRI LANKA	LK
SUDAN	SD
SURINAME	SR
SVALBARD AND JAN MAYEN	SJ
SWAZILAND	SZ
SWEDEN	SE
SWITZERLAND	CH
SYRIAN ARAB REPUBLIC	SY
TAIWAN	TW
TAJIKISTAN	TJ
TANZANIA, UNITED REPUBLIC OF	TZ
THAILAND	TH
TIMOR-LESTE	TL
TOGO	TG
TOKELAU	TK

Country	Country Code
TONGA	TO
TRINIDAD AND TOBAGO	TT
TUNISIA	TN
TURKEY	TR
TURKMENISTAN	TM
TURKS AND CAICOS ISLANDS	TC
TUVALU	TV
UGANDA	UG
UKRAINE	UA
UNITED ARAB EMIRATES	AE
UNITED KINGDOM	GB
UNITED STATES MINOR OUTLYING ISLANDS	UM
URUGUAY	UY
UZBEKISTAN	UZ
VANUATU	VU
VATICAN CITY STATE	VA
VENEZUELA	VE
VIET NAM	VN
VIRGIN ISLANDS, BRITISH	VG
VIRGIN ISLANDS, U.S.	VI
WALLIS AND FUTUNA	WF
WESTERN SAHARA	EH
YEMEN	YE
ZAIRE	CD
ZAMBIA	ZM
ZIMBABWE	ZW
VANUATU	VU
VATICAN CITY STATE	VA
VENEZUELA	VE
VIET NAM	VN
VIRGIN ISLANDS, BRITISH	VG
VIRGIN ISLANDS, U.S.	VI
WALLIS AND FUTUNA	WF
WESTERN SAHARA	EH
YEMEN	YE
ZAIRE	CD
ZAMBIA	ZM
ZIMBABWE	ZW

---

**THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK**

---