

EBiSC Cell Line Data Registration Guide

Version 1.2

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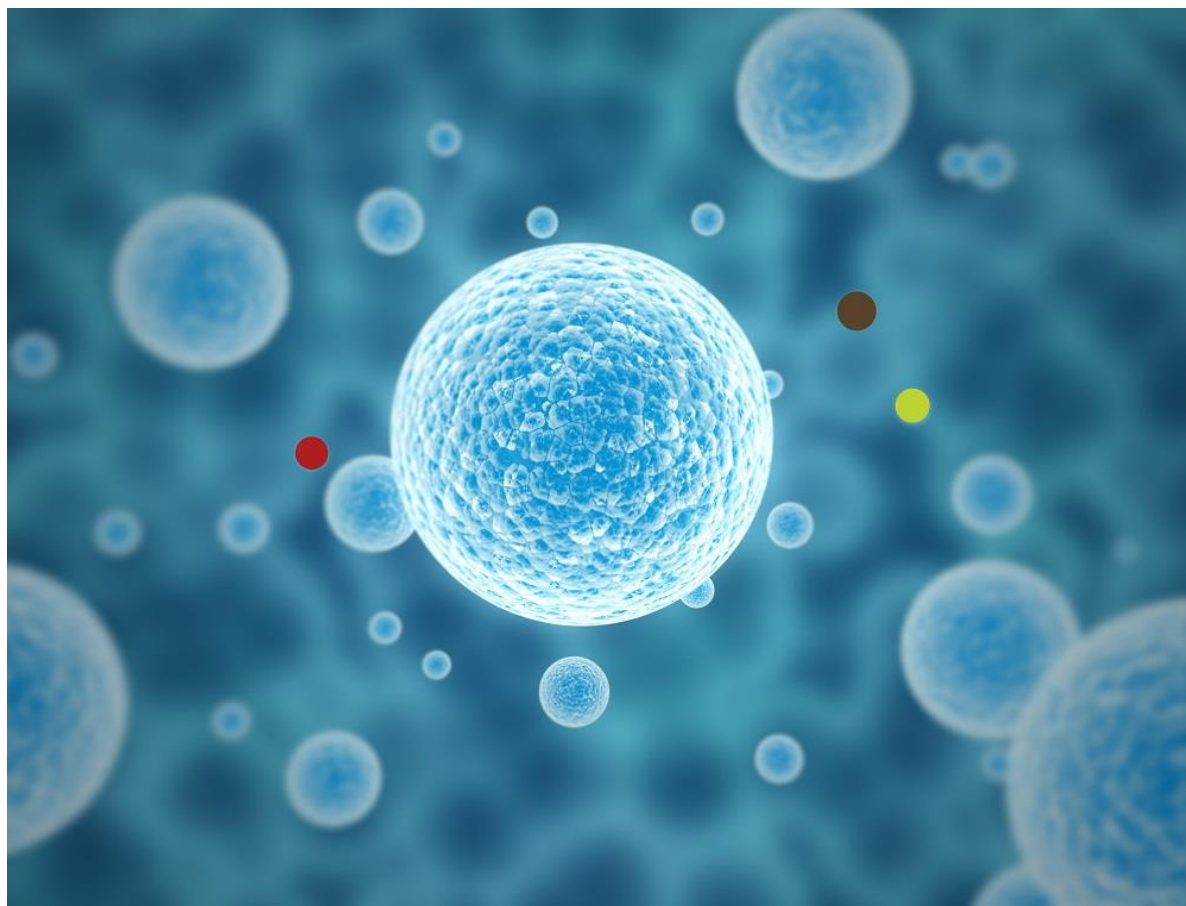


Table of Contents

1	Introduction	3
2	Additional Assistance	4
3	User Registration.....	4
4	Login and Dashboard	5
5	Register a Cell Line for EBiSC.....	8
5.1	Standard Nomenclature.....	8
5.2	Adding data to the cell line	10
5.3	Submitting the cell line data	11

1 Introduction

EBiSC is a not-for-profit iPSC banking initiative to store and distribute iPSC lines (<https://ebisc.org/>). For a quick overview of the EBiSC deposition steps, please refer to the EBiSC webpage “Information for Depositors” (<https://cells.ebisc.org/depositors/>).

The following guide will explain how to register your iPSC line data for deposition in the *European Bank of induced pluripotent Stem Cells* (EBiSC). The EBiSC cell line data can be submitted using the special EBiSC interface at the human pluripotent stem cell registry (hPSCreg; <https://hpscereg.eu>). All registered EBiSC iPSC lines will be automatically be registered on hPSCreg.

A short overview of the general registration process is depicted in Figure 1. As a very first step, please apply for a hPSCreg user login at hPSCreg.eu, as it may take one or two working days for your account to be verified.

We highly recommend that you check the list of mandatory information needed to register your cell lines before you try to navigate the data entry form. A checklist of mandatory items for the registration of EBiSC lines is located in the document “EBiSC Mandatory Fields for Cell line Registration” (https://ebisc.org/docs/ebisc/EBiSC_Mandatory_Fields_for_Cell_Line_Registration.pdf). If you do not have all of the required information on hand, you can save your data and continue entering the missing information later. New data can also be supplied at a later time point.

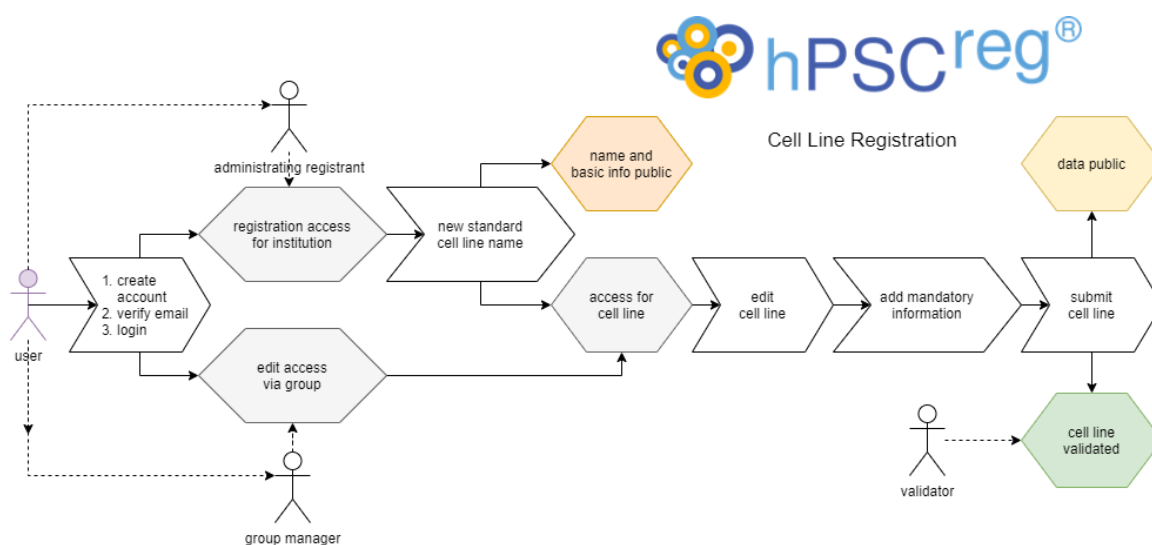


Figure 1. Overview of the cell line registration process in hPSCreg

2 Additional Assistance

If at any time you have any questions or comments about the registration or data entry process (EBISC or hPSCreg), please submit your requests to the contact form:

<https://hpscereg.eu/contact>

Once you have a login, you can also contact us by clicking on the "Send support mail" button on the Dashboard (see Figure 4) or in the sidebar (see Figure 10).

3 User Registration

Registering yourself as a user on hPSCreg is a two-step process:

- 1) If you do not have a hPSCreg user account, please sign up for an account:

<https://hpscereg.eu/signup>

The screenshot shows the hPSCreg Sign Up form. At the top, there is a header with the hPSCreg logo, a search bar, and links for Browse, Info, and User. The form is divided into three main sections: Personal & Account, Address, and Security. The Personal & Account section includes fields for Given Name, Family Name, E-Mail, Password, and Confirm Password. The Address section includes fields for Institution, Street, Postal code, City, and Country. The Security section includes a CAPTCHA and a checkbox for accepting the privacy policy. A 'Sign Up' button is at the bottom.

Figure 2. Sign-up form

- 2) Upon filling out the on-line form and clicking "Sign Up", the system will confirm the receipt of your data (Figure 3, upper image). You will then be sent a verification email. If you do not receive a mail in your inbox, please check your junk mail folder. Verify your e-mail address by clicking on the provided link in the e-mail, and then you should see the confirmatory message in Figure 3, lower image.

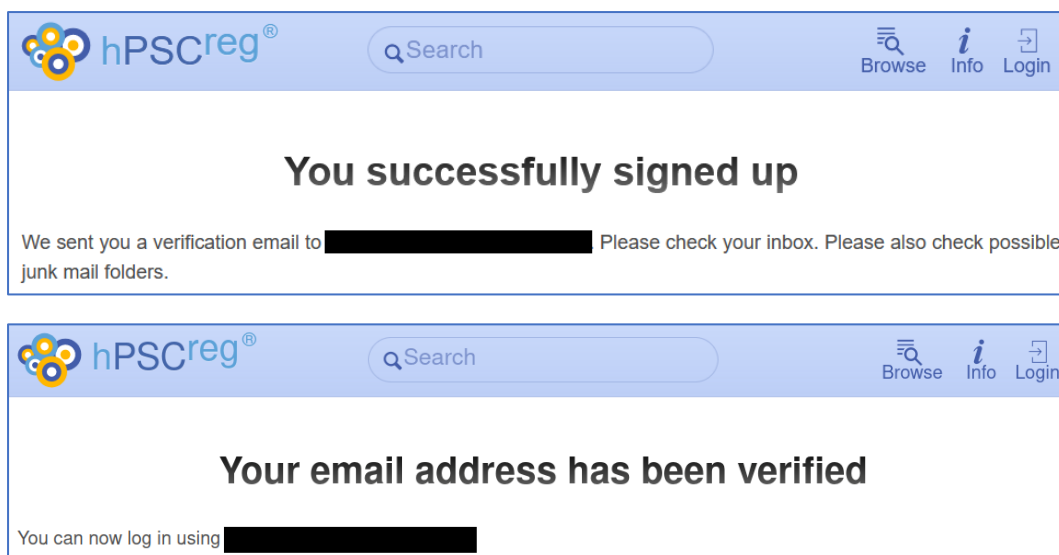


Figure 3. Successful sign-up and email verification

4 Login and Dashboard

Login using your hPSCreg user credentials here: <https://hpscereg.eu/login>

You will be directed to your "Dashboard" page (Figure 4), where you can start registering a line.

<https://hpscereg.eu/user/dashboard>

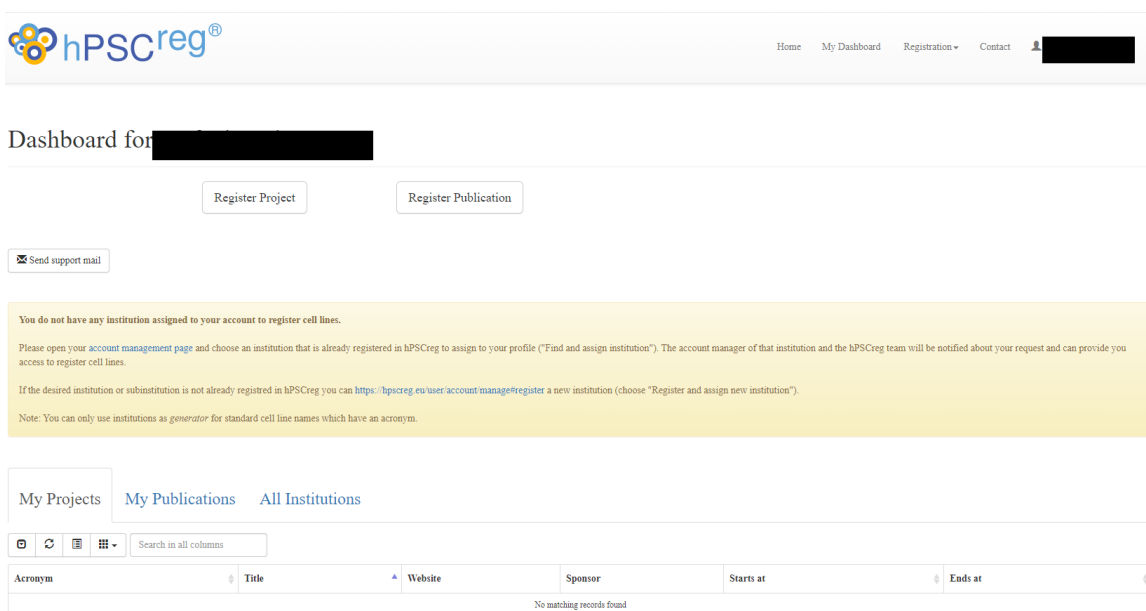


Figure 4. First-time user dashboard

As a first-time user, you will be required to associate your profile with an institution. This institution will be the generator institution of the cell lines that you register. Go to

<https://hpscereg.eu/user/account/manage/#assign>

and click on "Find and assign institution" to search for your institution in hPSCreg (Figure 5). Search for your institution in the drop-down box and select it. If you find your institution on the drop-down list, click "Assign Institution".

Figure 5. Assign an existing institution to your profile

An automated email will be sent to the “Administrating Registrant” of the institution, who should upgrade your status from "Applicant" to "Registrant". If you do not receive an email notification within two business days, please contact hPSCreg for assistance: <https://hpscereg.eu/contact>.

However, if your institution is not in the drop-down list, you must create your institution. Click on "Register and assign new a institution" (<https://hpscereg.eu/user/account/manage#register>)

Fill out all of the information fields shown in Figure 6. As you are the first to the register this institution in hPSCreg, you will be the first Administrating Registrant of this institution. You also have the option of nominating yourself or someone else as the public contact person for this institution.

In some cases, you may wish to register lines under a sub-institution (eg. "Institute of Stem Cell Research"), which is part of the main institution (e.g. "University of Springfield"). In this case, create the main institution first (e.g. "University of Springfield"). Then click "Register and assign a new institute" again, and enter the name of the sub-institution in the name field (e.g. "Institute of Stem Cell Research") and select the main institution from the sub-institution drop-down menu (e.g. "University of Springfield"). Now you can also create a naming acronym which is specific for your sub-institution.

To summarize, users in hPSCreg have different statuses:

- Applicant: a user that requests to be associated with an existing institution, for the purposes of registering cell lines.
- Registrant: a user that is allowed to register cell lines for an institution.

- **Administrating Registrant:** a user that has the responsibility to approve "Applicants" to become "Registrants" for the institution s/he is managing. Administrating Registrants are also allowed to register lines and change the contact data of the institutions that they manage. There may be multiple Administrating Registrants for each institute. If a user registers a new institute for the first time, this user becomes an "Administrating Registrant" of this institution by default.

Register a new institution in hPSCreg and assign to my profile

General information

Name Name of the institution
E.g. "University of Springfield". If the institution you want to register is a *subinstitution*, please select the higher-level institution in the step below and only fill in the name of the institute or department, e.g. "Institute for Stem Cell Research".

Subinstitution of Search by name or acronym (optional)
Please select the higher-level company or institution, e.g. "University of Springfield", if your institution is a subinstitution, e.g. "Institute for Stem Cell Research" or [Clear](#)

Acronym Generator acronym (2-6 letters)
A generator acronym must be 2-6 letters long and will be used for hPSCreg standard cell line names. Institutions without acronym can not be used as generator.

Address information

Street / No. Street & number

Figure 6. Register a new institution in hPSCreg

hPSCreg® Home My Dashboard Registration Contact

This is the test version of hPSCreg. It is not using the live database.

Dashboard for [User]

[Register Cell Line](#) [Register Project](#) [Register Publication](#) [Register line for EBISC](#)

[quick-start guide](#) [Information for potential EBISC depositors](#)

[Send support mail](#)

[My Cell Lines](#) [My Projects](#) [My Publications](#) [My Institutions](#) [All Institutions](#)

The following table shows all institutions assigned to your profile. You can only register cell lines for an institution that is assigned to your profile with status **Registrant** and if the institution has a generator **acronym** to be used in standard cell line names. If you are **Manager** for a certain institution you have permission to add/remove/change user profiles assigned to that institution. If you are not manager and you need registration access for a certain institution and your status is **Applicant**, please contact the manager of that institution.

[Find and assign institution](#)
[Register and assign a new institution](#)

Acronym	Institution	Institution data & account manager	My Role	Action
BCRT	Berlin-Brandenburg Center for Regenerative Therapies	[Redacted]	Registrant	Remove
CUB	Charité - Universitätsmedizin Berlin	[Redacted]	Applicant	Remove

Figure 7. Example dashboard after institutions have been associated with the profile

5 Register a Cell Line for EBiSC

As part of the deposition process for the EBiSC bank, the cell line data must be entered into hPSCreg. Information about the entire EBiSC deposition process (including the deposition of cells and data) can be found here: <https://cells.ebisc.org/depositors/>.

To start registering your EBiSC cell line data, click on the button called "Register line for EBiSC" on your dashboard.

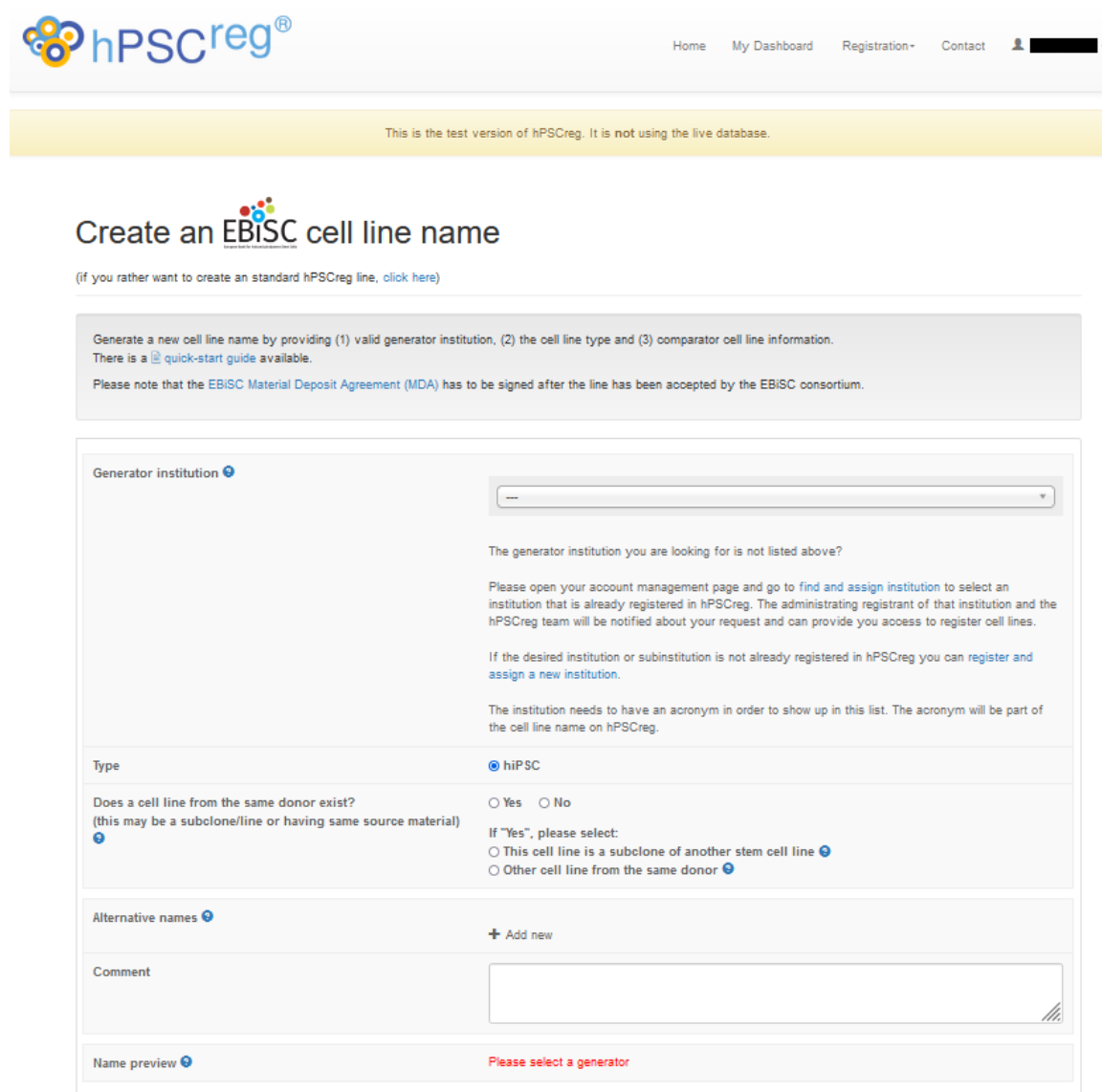
5.1 Standard Nomenclature

You will be directed to the page "Create an EBiSC cell line name" (Figure 8). The standard name serves as a unique reference code for the cell line, which facilitates the linking of this specific cell line to other resources, such as publications and other databases. It will be generated according to the standard human PSC nomenclature (<https://hpscereg.eu/about/naming-tool>). Naming is a required first step in cell line registration.

Please fill out the following mandatory fields:

- Generator institution
- Cell line type (required for hPSCreg lines)
- Does a comparator cell line exist?

Although it is not mandatory, please feel free to enter alternative names (i.e. synonyms or other identifiers) of the cell line, as this helps in preventing duplicate registrations, as well as improving the search function to find lines by their alternative names.



The screenshot shows the hPSCreg website interface. At the top, there is a navigation bar with links for Home, My Dashboard, Registration, and Contact. A yellow banner below the navigation bar states: "This is the test version of hPSCreg. It is not using the live database." The main heading is "Create an EBiSC cell line name", with a sub-link "(if you rather want to create an standard hPSCreg line, click here)". Below this is a grey box containing instructions: "Generate a new cell line name by providing (1) valid generator institution, (2) the cell line type and (3) comparator cell line information. There is a quick-start guide available. Please note that the EBiSC Material Deposit Agreement (MDA) has to be signed after the line has been accepted by the EBiSC consortium." The form itself is divided into several sections: "Generator institution" with a dropdown menu and explanatory text; "Type" with a radio button selection for "hiPSC"; "Does a cell line from the same donor exist?" with "Yes" and "No" options and further instructions; "Alternative names" with an "Add new" button; "Comment" with a text area; and "Name preview" which currently displays the message "Please select a generator".

Figure 8. Create a cell line name for EBiSC deposition

Click "Finish" to submit the initial data. You will be asked to confirm that the initial data is correct. The system will automatically generate a reference code (also known as a standard cell line name) for your cell line (Figure 9).

At this point, you can register another cell line, or go to your "Dashboard" to continue adding data to the newly created line.

Once a standard name has been created, the cell line name can be found in hPSCreg. Only basic data will be displayed, such as the cell line type (hiPSC or hESC), institution that generated the line, the Biosamples ID for the cell line, and publications associated with the cell line, if any have been entered.



Figure 9. Successful registration of a cell line standard name (reference code)

5.2 Adding data to the cell line

Once a cell line name has been created, you can start entering data associated with the cell line. From your "Dashboard", select the line that you want to edit.

There are eight tabs of data that need to be filled out:

- General Information
- Donor Information
- Ethics/Usage
- Derivation
- Culture Conditions
- Characterisation
- Genotyping
- Genetic Modification

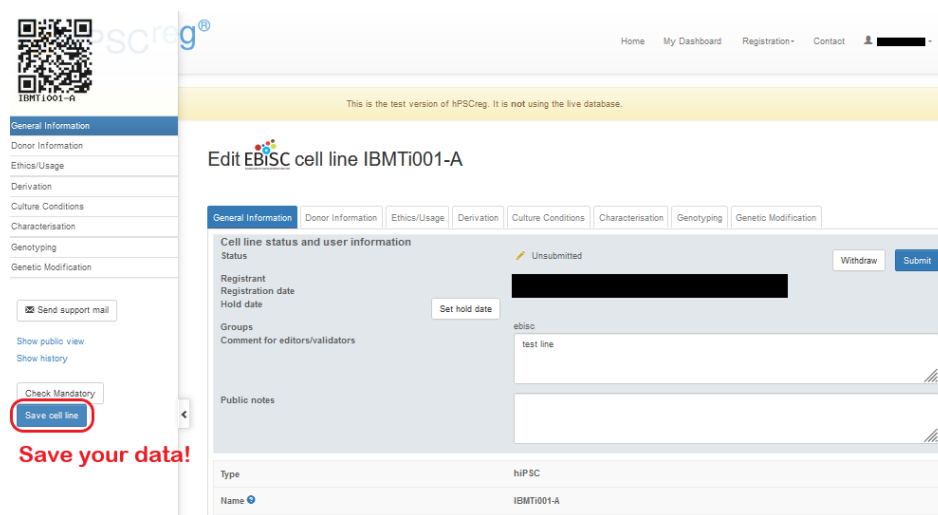
For an overview of the information that are mandatory for the registration of an EBiSC line, please consult the document "EBiSC Mandatory Fields for Cell Line Registration" (https://ebisc.org/docs/ebisc/EBiSC_Mandatory_Fields_for_Cell_Line_Registration.pdf).

The genetic information (such as karyotypes, genetic variants, STR profiles, and gene editing) associated to hPSC lines is recorded in standardized formats as much as possible to have a FAIR dataset. Further details on entering genetic information can be found in the document "Guidance for Recording Genetic Information in hPSC Lines" (https://hpscereg.eu/docs/downloads/guidance_recording_genetic_info.pdf)

Please save your data during the data entry process (e.g. after filling out one whole tab) by clicking "Save cell line" in sidebar on the left-hand side of the form (Figure 10Error! Reference source not found.). Make sure you save your data before leaving the editing page, as most data will be lost without clicking "Save cell line". You do not have to enter all of the data in one session.

Please note that if there are mandatory fields that have been left empty, you will not be allowed to submit the cell line for validation.

Missing information that is not mandatory can be entered later on.



The screenshot shows the hPSCreg website interface. On the left is a sidebar with navigation links: General Information, Donor Information, Ethics/Usage, Derivation, Culture Conditions, Characterisation, Genotyping, and Genetic Modification. Below these are links for 'Send support mail', 'Show public view', 'Show history', 'Check Mandatory', and a red-outlined 'Save cell line' button. A red arrow points from the text 'Save your data!' to this button. The main content area is titled 'Edit EBiSC cell line IBMTi001-A'. It features a top navigation bar with tabs: General Information (selected), Donor Information, Ethics/Usage, Derivation, Culture Conditions, Characterisation, Genotyping, and Genetic Modification. The 'General Information' tab is active, showing 'Cell line status and user information'. The status is 'Unsubmitted'. Fields include 'Registrant' (redacted), 'Registration date', 'Hold date' (with a 'Set hold date' button), 'Groups' (set to 'ebisc'), and 'Comment for editors/validators' (with a text area). There is also a 'Public notes' section with a text area. At the bottom, a table shows 'Type' as 'hiPSC' and 'Name' as 'IBMTi001-A'. Buttons for 'Withdraw' and 'Submit' are visible.

Figure 10. Entering data for the cell line: don't forget to save!

5.3 Submitting the cell line data

Once you have reached the "Genetic Modification" tab, click "Finish" to submit the cell line for validation. You will be asked to confirm the submission, and if there are any comments that you would like to make, you can enter them in the text field (Figure 11).

Click on "Submit cell line for validation". If some of the mandatory fields have not been filled out, you will be prompted to enter the missing information.

Please note that the mandatory fields must be filled before your cell line can be successfully submitted. In the case that you are trying to submit a genetically modified cell line (also known as a subclone in hPSCreg®), the parental cell line (meaning the cell line without genetic modifications) must have already been validated.

Once the cell line submission is successful, most of the cell line data will be publicly visible in hPSCreg®. Additionally, the cell line will be validated by the hPSCreg® Operations Team and you will receive a confirmation by e-mail.

Submit

**Are you finished with the registration of the cell line?**

For the characterization of the cell line, please provide as much information as possible, including the marker expression for the undifferentiated stem cell status, as well as the differentiation into all three germ layers.

Further information about cell culture, characterisation and genotyping can be edited at a later time point, by opening the cell lines from your dashboard.

If you want to leave any comment for the data curators, please use the textbox below.

Would you like to finally submit your cell line registration?

☒ yes ☐ no

Would you like to leave a comment?

I confirm that to the best of my knowledge that the submitted data are accurate and complete. I agree that the registered data will be publicly available via the hPSCreg website.

Submit cell line for validation

Cancel

Figure 11. Submit the cell line for validation