

**Cell Line Registration
Quick-Start Guide**

for

**Human Pluripotent Stem Cell Registry
(hPSCreg)**



and

**European Bank for Induced Pluripotent
Stem Cells (EBiSC)**



Version 0.1.9. June 2, 2016

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1 Introduction

The following is a quick-start guide to registering your cell lines for the human pluripotent stem cell registry (hPSCreg). Alternatively, you may also choose to register your line for deposition in the *European Bank of induced pluripotent Stem Cells* (EBiSC).

EBiSC is a not-for-profit iPSC banking initiative to store and distribute iPSC lines (<https://www.ebisc.org/>). For a quick overview of the EBiSC deposition steps, please refer to the document "[Information For Potential EBiSC Depositors](#)". If you chose to register your lines in EBiSC, they will also automatically be registered in hPSCreg.

The registration procedure is similar for both registries. As a very first step, please apply for access to the database (described below), 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 is located in Appendix I at the end of this document. Please note that the mandatory information needed for cell line validation are slightly different between hPSCreg and EBiSC. Cell lines registered for EBiSC will only be validated in hPSCreg if all relevant mandatory information for hPSCreg is provided. Please also note that 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.

2 Help!

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:

<http://hpscereg.eu/contact>

3 Registration

Registration is a two-step process:

1) Fill out the on-line form:

<http://hpscereg.eu/signup>

2) Once your data has been verified, you will be notified by e-mail.

Figure 1. Sign-up form

hPSCreg Search Browse About Login

Sign Up

Personal & Account

Given Name*

Family Name*

E-Mail*

Password*

Confirm Password*

Address

Institution*

Street

Postal code

City*

Country*

I am aware that I need to sign up only if I want to edit any cell lines*

Security*

Sign Up

*Mandatory

4 Login and Dashboard

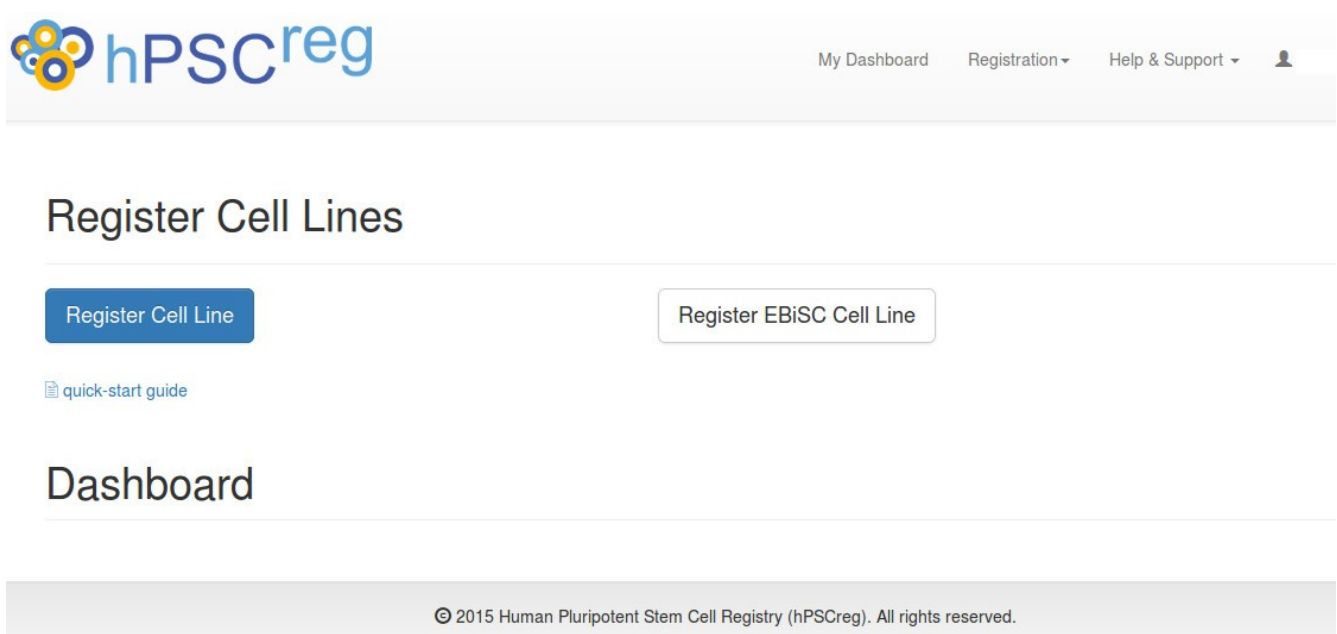
Access the registration website here:

<http://hpscereg.eu/login>

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

http://hpscereg.eu/user/my_hpscereg

Figure 2. First-time user dashboard



5 Register a Cell Line

To register a cell line, click on "Register Cell Line".

If you want to deposit a line in EBiSC, click on "Register Cell Line for EbiSC". For a quick overview of the advantages of depositing in EBiSC, as well as the required steps for deposition, please refer to the document "[Information For Potential EBiSC Depositors](#)".

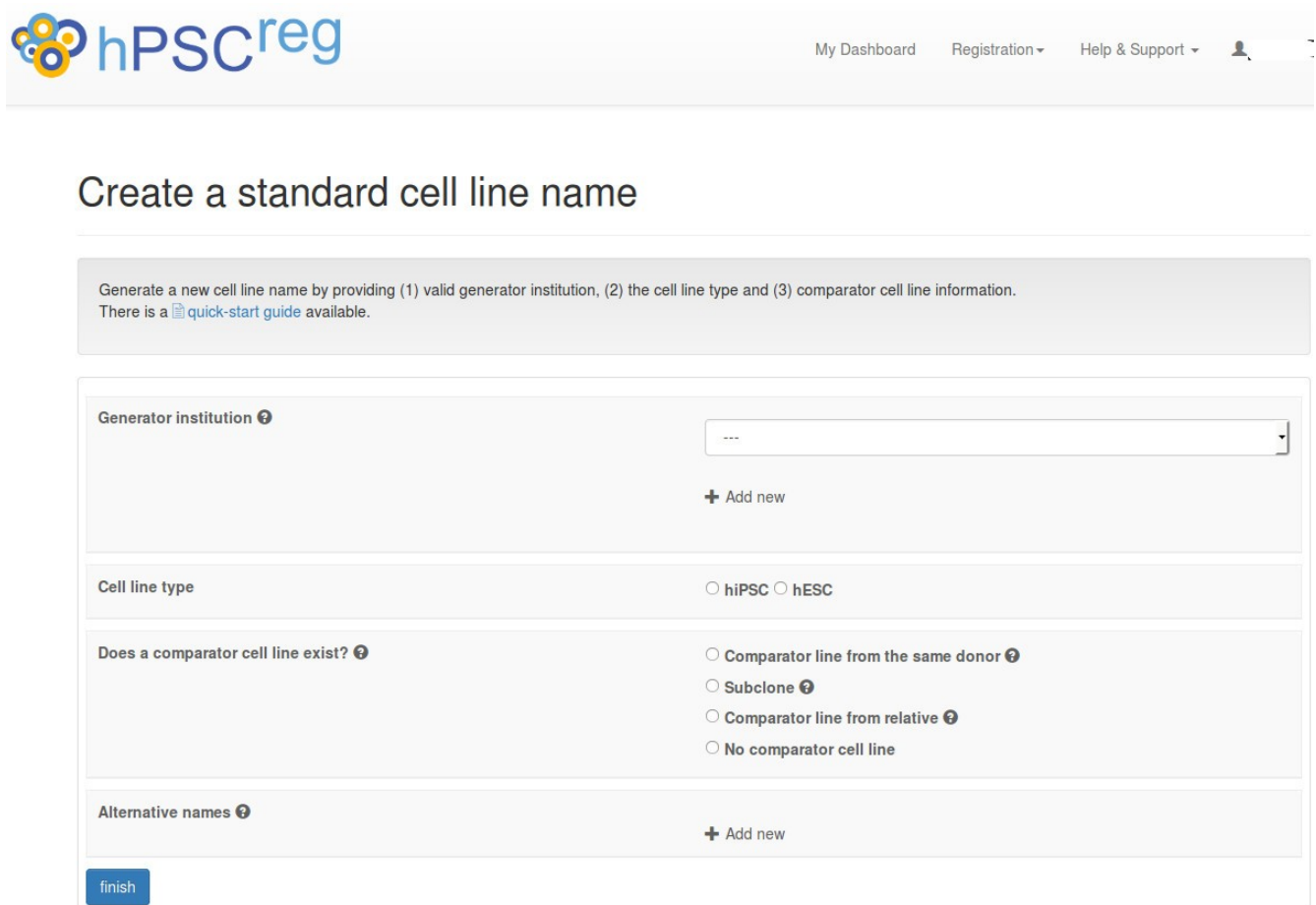
5.1 Standard Nomenclature

You will be directed to the page "Create a standard cell line name". The name will be generated according to the standard human PSC nomenclature (<http://hpscreg.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 (not required for EBiSC lines)
- Does a comparator cell line exist?

Figure 3. Create a cell line name (hPSCreg)



The screenshot shows the hPSCreg website interface. At the top, there is a navigation bar with the hPSCreg logo on the left and links for "My Dashboard", "Registration", "Help & Support", and a user profile icon on the right. Below the navigation bar, the main heading is "Create a standard cell line name".

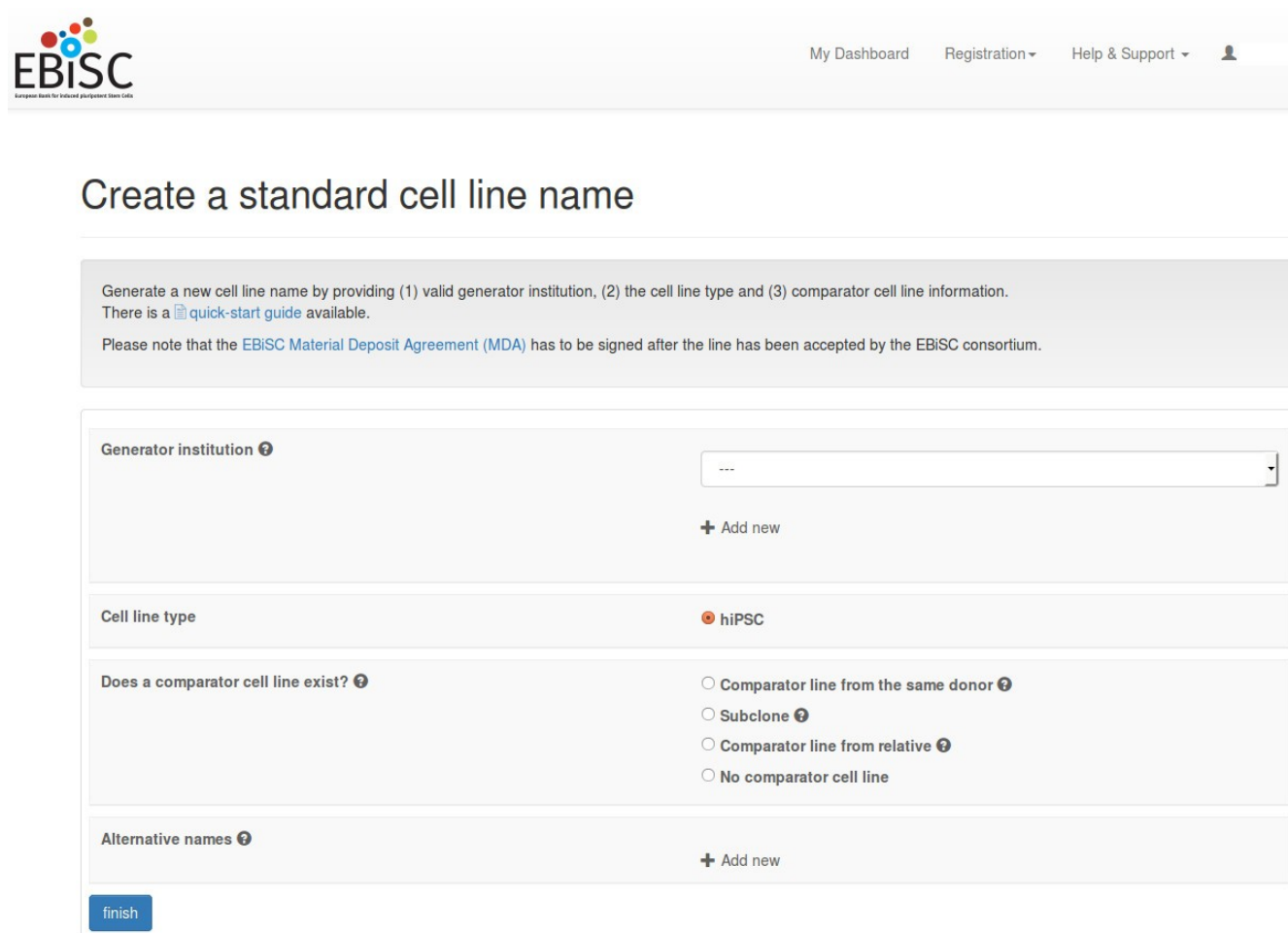
A grey instruction box states: "Generate a new cell line name by providing (1) valid generator institution, (2) the cell line type and (3) comparator cell line information. There is a [quick-start guide](#) available."

The form consists of several sections:

- Generator institution:** A dropdown menu with a question mark icon and a "+ Add new" button below it.
- Cell line type:** Radio buttons for "hiPSC" and "hESC".
- Does a comparator cell line exist?:** Radio buttons for "Comparator line from the same donor", "Subclone", "Comparator line from relative", and "No comparator cell line", each with a question mark icon.
- Alternative names:** A text input field with a "+ Add new" button below it.

At the bottom left of the form, there is a blue "finish" button.

Figure 4. Create a cell line name (EBiSC)

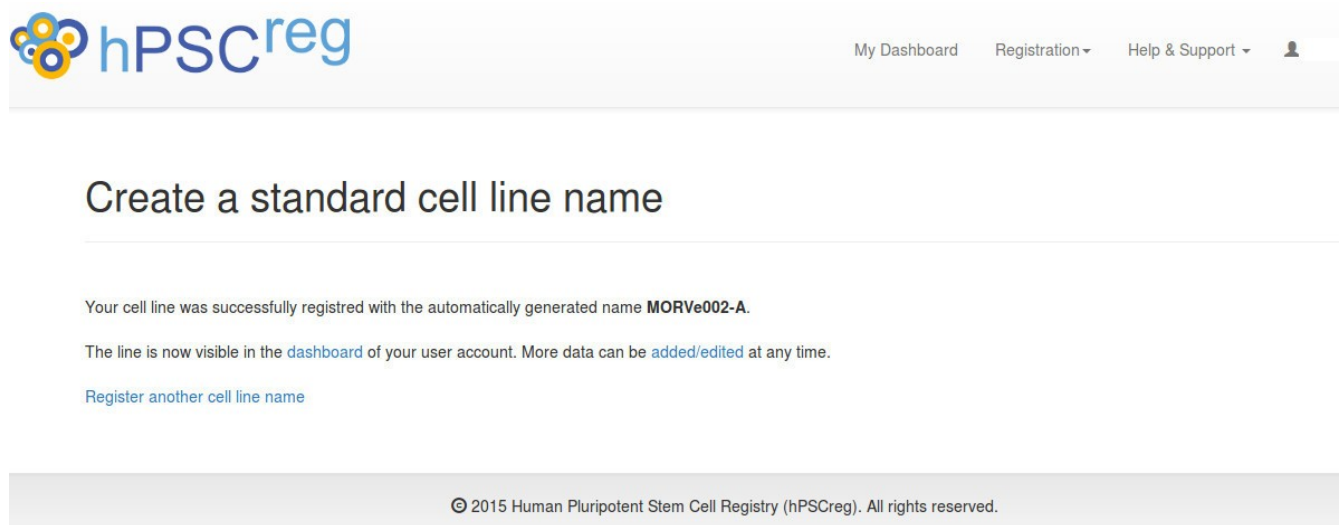


The screenshot shows the EBiSC website interface. At the top left is the EBiSC logo with the tagline 'European Bank for Induced pluripotent Stem Cells'. To the right of the logo are navigation links: 'My Dashboard', 'Registration', and 'Help & Support'. Below the navigation is a large heading 'Create a standard cell line name'. Underneath this heading 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.' Below the instructions is a form with four sections: 1. 'Generator institution' with a dropdown menu and a '+ Add new' button. 2. 'Cell line type' with a radio button selected for 'hiPSC'. 3. 'Does a comparator cell line exist?' with four radio button options: 'Comparator line from the same donor', 'Subclone', 'Comparator line from relative', and 'No comparator cell line'. 4. 'Alternative names' with a '+ Add new' button. At the bottom left of the form is a blue 'finish' button.

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 standardized ID for your cell line.

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

Figure 5. Successful creation of a cell line name



6 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 six tabs of data that need to be filled out:

- General Information
- Ethics
- Derivation
- Culture Conditions
- Characterisation
- Genotyping

For an overview of the fields that are mandatory for registration, please consult the **Appendix I** at the end of this document.

Please save your data often (e.g. after filling out one whole tab) by clicking "save" on the top right-hand side of the form. This is really useful if you cannot enter the data all 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.

Figure 6. Entering data for the cell line: don't forget to save!

EBiSC
European Bank for Induced pluripotent Stem Cells

My Dashboard Registration Help & Support

Edit EBiSC cell line MORVi008-B

Save your data!

Save cell line

General Information Ethics hiPSC Derivation hiPSC Culture Conditions Characterisation Genotyping

* Cell line type hiPSC

Cell line name MORVi008-B

Provider

* Generator institution Moravia National Academy (MORV)

Contact institution or department

+ Add new

Owner

+ Add new

Distributor 1 selected

+ Add new

Once you have reached the "Genotyping" 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 7. Submit the cell line for validation

Genotyping

HLA Typing Yes No n/a

* STR/Fingerprinting yes no

+	Locus	Allele 1	Allele 2
+	TPOX	11	23
+ Add new			

Has genome-wide analysis been performed? yes no

Disease associated genotype

Does the line carry variants associated with the disease phenotype? yes no

* Is the cell line genetically modified? yes no

previous

Are you finished with the registration of the cell line?

Please note that after your final submission of the cell line registration, a standardised name is automatically generated and therefore all entries crucial for the naming can not be changed afterwards. This mainly regards the generator, comparator cell line (in case of "same donor" or "subclone") and the cell line type.

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

Before your cell line appears online, your provided information will be reviewed by a national representative.

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

Do you want to finally submit your cell line registration?
 yes no

Do you want to leave a comment?

some comments here

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 hPSC website.

yes no

Submit cell line for validation

* mandatory field

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.

Once the cell line submission is successful, your cell line will be validated by the National Representative and you will receive a confirmation by e-mail.

7 Cell Line Certificates

If you would like to obtain a certificate for your validated cell line, please send a request to us through the contact form:

<http://hpscereg.eu/contact>

8 Appendix

Appendix I. Mandatory information for cell line registration

The following tables, grouped by the tabs in the entry form, indicate which information is mandatory for which cell lines (hESC, hiPSC) and which databases (EBiSC or hPSCreg). Short descriptions are provided for additional clarification.

General Information Tab: all cell lines

Field	Mandatory Information		Short description
	EBiSC	hPSCreg	
*Cell line type	yes	yes	hESCreg contains both hiPSC or hESC, whereas EBiSC only has hiPSC lines.
Cell line name			A systematic name will be automatically be assigned upon cell line creation.
*Generator institution	yes	yes	Name of institution that generated the cell line
* Biosamples ID	yes	yes	Does a Biosamples ID (https://www.ebi.ac.uk/biosamples/) for this cell line exist? Some IDs might already exist, like for HipSci lines. If a Biosamples ID exists, please enter the ID here. If you are not sure, please click on the button "Create" to display a pop-up menu. Then search the Biosamples database to check by clicking on "Biosamples Website". If you are certain that no Biosamples ID exists for this cell line, check the box "No Biosamples ID exists", and once you submit the cell line for validation (at the very last step of cell line submission), a Biosamples ID will be created automatically for you.
* Is the cell line available in principle?	yes	yes	Is the cell line readily obtainable for third parties?
*Sex	yes	yes	What is the biological sex of the donor?

Field	Mandatory Information		Short description
	EBiSC	hPSCreg	
* Biosamples Donor ID	yes	yes	Does a Biosamples ID (https://www.ebi.ac.uk/biosamples/) for this donor exist? Some IDs might already exist, like for HipSci lines. If a Biosamples ID exists for the donor, please enter the ID here. If you are not sure, please click on the button "Create" to display a pop-up menu. Then search the Biosamples database to check by clicking on "Biosamples Website". If you are certain that no Biosamples ID exists for this donor, check the box "No Biosamples ID exists", and once you submit the cell line for validation (at the very last step of cell line submission), a Biosamples Donor ID will be created automatically for you.
* Is there a disease diagnosed?	yes	yes	Has the donor been diagnosed with a disease?

Ethics Tab: hESC lines only

Field	Mandatory Information		Short description
	EBiSC	hPSCreg	
* Has institutional review board approval/competent authority approval been obtained for derivation of the ESC line?	NA	yes	
* Has consent been obtained from the donor of the embryo from which ESC cells have been made?	NA	yes	
* Have both parents consented to the use of the embryo for ESC derivation?	NA	yes	
* Does consent expressly permit derivation of ES cells?	NA	yes	
* Was the embryo established purely for research purposes?	NA	yes	

Field	Mandatory Information		Short description
	EBiSC	hPSCreg	
* Please confirm that no pressure was put on the donor at any stage for donation.	NA	yes	The answer is yes if the donation of the material was free and voluntary.
* Please confirm that no financial inducement was offered to donation for clinical use at any stage.	NA	yes	The answer is yes if no inducing payment was offered for the donation of the material. Reimbursement of incurred costs (e.g. travel) and compensation for effort are excluded as long as these do not constitute undue inducement.
* Are personal data and privacy of donors of embryos for the derivation of the cells are protected?	NA	yes	
* Has the cell line been derived with the donor informed consent?	NA	yes	Please note that without evidence for donor consent, the cell line cannot be registered. For registration of the cell line, please download the attached file (ethics evaluation form), complete and upload the signed form. If possible, also upload any other supporting documentation as specified in the "Ethics evaluation form".

Ethics Tab: hiPSC lines only

Field	Mandatory Information		Short description
	EBiSC	hPSCreg	
* Has consent been obtained from the donor of the tissue from which iPS cells have been made?	yes	yes	If the cells or tissues used for reprogramming or somatic cell nuclear transfer (SCNT) have been obtained from a commercial vendor, a cell bank, or other third parties, this information needs to be obtained from the relevant third party.
* Please confirm that no pressure was put on the donor at any stage for donation.	yes	yes	The answer is yes if the donation of the material was free and voluntary.
* Please confirm that no financial inducement was offered to donation for clinical use at any stage.	yes	yes	The answer is yes if no inducing payment was offered for the donation of the material. Reimbursement of incurred costs (e.g. travel) and compensation for effort are excluded as long as these do not constitute undue inducement.

Field	Mandatory Information		Short description
	EBiSC	hPSCreg	
* Do you (depositor/provider) hold a copy of the donor consent?	yes	yes	If you have a copy of the donor consent form, please upload a blank or anonymised donor consent document.
* Can you provide us with a copy, in English, of the consent information provided to the donor?	yes	yes	This refers to the information provided to the donor to make a decision before consent is obtained. If available, please upload a copy in English.
* Can you provide us a copy of the donor consent form, in English?	yes	yes	If no English version is available for the consent information, please upload the original version.
* Does consent permit testing for genetic characteristics?	yes	no	
* Does consent permit testing for microbiological agents and pathogens?	yes	no	
* May the donation and information derived from the donor's material directly influence their personal future treatment?	yes	no	
* Was the donor informed about how her/his data will be protected?	yes	yes	
* Has the donated material been coded or pseudonymised?	yes	yes	
* Has the donated material been rendered unidentifiable (anonymised)?	yes	yes	
* Is the donor's identity protected although she/he suffers from an extremely rare inherited disease (i.e. only a few families in the country of origin)?	yes	yes	

Field	Mandatory Information		Short description
	EBiSC	hPSCreg	
* Are genetic information associated with the cell line?	yes	yes	Have any investigations of the genetic information of the cell line been performed that resulted in data which may be used to identify the original donor? For further information about the associated risks and access options for these data refer to the "Ethics evaluation form" and hPSCreg's "Management procedures for ethics information and risks" (http://hpscereg.eu/about/documents-and-governance)
* Are genetic information associated with the cell line available?	yes	yes	
* Does consent permit access to medical records of the donor?	yes	no	
* Does consent permit access to any other source of information about the clinical treatment or health of the donor?	yes	no	
* Has institutional review board approval/competent authority approval been obtained?	yes	yes	If yes, please indicate the name of accrediting authority involved (mandatory information).

Derivation Tab: hESC lines only

Field	Mandatory Information		Short description
	EBiSC	hESCreg	
* Date of derivation	NA	yes	
* Supernumerary embryos from IVF treatment?	NA	yes	
* PGD Embryo	NA	yes	Does the material originate from a pre-implantation genetic diagnosis (PGD) embryo?

Derivation Tab: hiPSC lines only

Field	Mandatory Information		Short description
	EBiSC	hESCreg	
* Primary cell type: * Name	yes	yes	What is the donor cell type that was used for deriving the iPS cell line?
* Vector type	yes	yes	What kind of vector was used to generate the iPS cell line? Choices are: Integrating (virus, plasmid, transposon, other), Non-integrating (episomal, sendai virus, AAV, other), or None.

Culture Conditions Tab: all cell lines

Field	Mandatory Information		Short description
	EBiSC	hESCreg	
* Medium	Yes	yes	Select from a menu: mTeSR™ 1, mTeSR™ 2, StemPro® hESC SFM, Essential 8™, VitroHES, TeSR™ E8™, or other

Characterisation: all cell lines

Field	Mandatory Information		Short description
	EBiSC	hESCreg	
Undifferentiated cells	yes	yes	The expression of at least 4 different markers (by any of the following methods: immuno/marker staining, RT-PCR, FACS) to demonstrate undifferentiated status must be shown.
Differentiation potential	no	yes	Differentiation into all three germ layers must be shown.

Genotyping: all cell lines

Field	Mandatory Information		Short description
	EBiSC	hESCreg	
*Has the cellline karyotype been analysed?	yes	no	Has a karyotype been produced for the cell line? If yes, please enter the passage number of the cells karyotyped and the karyotype. You can also upload a karyogram. If the karyotyping has been performed several times, without any changes of the karyotype, please enter only the results of the highest passage tested. If a change occurred in the karyotype of the cells made available to researchers then that karyotype should be reported. Sublines with different karyotypes should be submitted as different subclones of the original line.
*STR/Fingerprinting	yes	yes	Have short tandem repeats (STR) or the fingerprint of the cell line been analysed? Please select from the list: TPOX, D3S1358, D5S818, FGA, CSF1PO, D7S820, D8S1179, TH01, VWA, D13S317, D16S539, D18S51, D21S11, AMEL, or 'other'.

Field	Mandatory Information		Short description
	EBiSC	hESCreg	
*Is the cell line genetically modified?	yes	yes	If the cell line has been genetically engineered (other than modifications introduced by reprogramming procedures), please choose the appropriate method(s) used and provide information on the specific genetic modification introduced. Methods include: Transgene expression, Gene knock-out, Gene knock-in, Isogenic modification, or 'other'. For any genetically modified cell line, the name of the original cell line should have been provided under the tab "General Information".