

SnapShot

Reporting practices for publishing results with human PSCs and tissue stem cells

ISSCR

INTERNATIONAL SOCIETY
FOR STEM CELL RESEARCH

STEM CELL REPORTS

ISSCR Task Force for Basic Research Standards¹
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Metadata		
<i>Describe the source of the cells/cell line including:</i>	Reference section	Page reported in manuscript
Name (or names)/alias of line	1.4; 5.1.2	
Unique ID/registry # (name of registry)	1.4	
Source (vendor and catalog number if obtained commercially); biopsy site and derivation details (if derived)	4.1.1; 5.1	
Additional metadata as applicable (e.g., sex, ethnicity, disease information, known mutations, etc.)	4.1.2; 5.4.1	

Culture details		
<i>Describe methods used for isolation, maintenance, and preservation of the cells including:</i>	Reference section	Page reported in manuscript
Passaging/dissociation/split ratio	3.2; 4.2.2; 5.1.1	
Freezing and thawing	5.1.1	
Culture reagents used (e.g., media, matrices, growth factors, etc.) with vendor and catalog number	4.2.2; 5.1.1	
The passage number of the cryopreserved/characterized Master Cell Bank or Working Cell Bank stocks used, and the number of subsequent passages prior to and during experimentation	1.2; 3.2.2; 5.1.1	

Basic characterization		
<i>Describe the assessment of the following including when they were performed relative to the experiments:</i>	Reference section	Page reported in manuscript
Authentication	1.3; Appendix 1	
Mycoplasma	1.6; Appendix 1	
Sterility (bacteriostasis/fungistasis)	1.6; Appendix 3	

Genomic characterization		
<i>Describe the genomic characterization including:</i>	Reference section	Page reported in manuscript
Methodology used including sufficient detail to allow an assessment of sensitivity (e.g. the number of cells analyzed/resolution/depth of analysis)	3.1; 5.3; Appendix 5	
Timing of analysis in relation to key experiments reported	3.2	

Characterization of pluripotency and the undifferentiated state (PSCs only)		
<i>Describe the following:</i>	Reference section	Page reported in manuscript
Assay methodology	2.1; 2.2; 5.2; Appendix 4	
Quantitative results along with statistical analysis	2.1; 2.2; 5.2; Appendix 4	
Timing of analysis in relation to key experiments reported	2.1; 2.2; 5.2	

Confirmation of cell type (TSCs only)		
<i>Describe the characterization of the following:</i>	Reference section	Page reported in manuscript
Starting population(s) with recognized markers and methods	4.1; 4.3.1; 5.4.1	
Phenotype of expanded cells	4.1; 4.3.1; 5.4.1	
Demonstration of lineage potential	4.1; 4.3.1	

Molecular characterization		
<i>Describe the following:</i>	Reference section	Page reported in manuscript
Confirmation of disease mutation (if applicable)	4.3.4	
Confirmation of genetic modification (if applicable)	4.4.3; 4.4.4	

Experimental details		
<i>Describe the following:</i>	Reference section	Page reported in manuscript
Information regarding the experimental unit or sample type for each experiment (e.g. individuals, cell lines, clones, tissues, organoids, devices, batches, cells, etc.)	4.4.4; 5.4.2	
Number of replicates (biological/technical)	4.2.2; 5.4.2	

Data practices		
<i>Information on:</i>	Reference section	Page reported in manuscript
Statistical methods used	4.4.1; 5.4.2	
Inclusion of the data and annotation code/software used for phenotype classification for computationally derived classifiers (if applicable)	5.4.4	
Verification that FAIR (https://www.go-fair.org/fair-principles) and CARE (https://www.gida-global.org/care) data management principles were followed	5.4.4	

STEMCELL Technologies, a company of Scientists Helping Scientists, is a passionate advocate for standardizing human pluripotent stem cell (hPSC) data reporting and quality control measures, limiting experimental variability, and ensuring that relevant and reproducible findings are shared.

The ISSCR’s Standards for Human Stem Cell Use in Research document and this companion checklist represent critical steps toward these goals. By adhering to the reporting practices outlined in this wallchart and the principles that underlie them, you will help to improve quality and reproducibility for the field as a whole. Learn more about important cell quality attributes and find out how you can assess and maintain high-quality hPSCs by exploring the resources below.

Understanding the Standards
Learn more about the principles discussed within the standards document and how STEMCELL can help you apply them to your research with this curated collection of resources. From webinars, to interviews, to articles, you will find the information you need to achieve higher quality results and more standardized practices.
www.stemcell.com/ISSCR-Standards

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