NIA AGING CELL REPOSITORY Induced Pluripotent Stem Cell (iPSC) Submission Form

SECTION 1: CONTACT INFORMATION

Principal Investigator (Individual in whose laboratory this iPSC line was derived):

_____

Submitting Institution (Institution where this iPSC line was derived):

_____

Laboratory Contact Information:

Name: _____

Phone: _____

Email: _____

SECTION 2: INVENTORY INFORMATION

iPSC cell line name/identifier: _____

Passage number at freeze (should be greater than or equal to 10)_____

Label on tube: _____

Starting material cell type:

☐ Fibroblast

☐ Other (please describe): _____

SECTION 3: REPROGRAMMING INFORMATION

Reprogramming method:

☐ Episomal ☐ mRNA ☐ Sendai virus mediated

☐ Lentiviral ☐ Retroviral ☐ Other (please specify): _____

Reprogramming vectors:

☐ Yamanaka (please specify): _____

☐ Thomson (please specify): _____

☐ Addgene (please specify if available): _____

☐ CytoTune®(please specify if available): _____

Reprogramming genes:

☐ KLF4 ☐ MYC (c-Myc) ☐ POU5F1 (Oct4)

☐ LIN28A ☐ NANOG ☐ SOX2

Date of iPSC establishment: _____

Has the original cell line and/or iPSC line been described in a publication?

☐ Yes (please list reference(s) with PubMed ID(s))

_____

☐ No

SECTION 4: CULTURING INFORMATION

Growth media (please list base media, serum and additives; if commercially available, please list commercial name and supplier):

_____

_____

Is this line grown on a feeder layer?

☐ Yes
☐ No

If yes, please list source of feeder cells: _____

Is this line grown on substrate-coated dishes?

☐ Yes (please specify): _____
☐ No
☐ Other (please specify): _____

Concentration of FGF: _____

Do you use ROCK inhibitor in recovery media?

☐ Yes (please specify concentration of ROCK inhibitor): _____
☐ No

Passaging method (choose one):

☐ Collagenase ☐ EDTA ☐ TryplE ☐ Other (please specify): _____
☐ Dispase ☐ EZ Tool ☐ Trypsin

Passage frequency (choose one):

☐ 5 days ☐ 7 days
☐ 6 days ☐ Other (please specify): _____

Split ratio (choose one):

☐ 1:3 ☐ 1:5 ☐ Other (please specify): _____
☐ 1:4 ☐ 1:6

Approximate % of spontaneous differentiation present in iPSC culture: _____

Do you use ROCK inhibitor in passage media?

☐ Yes (please specify concentration of ROCK inhibitor): _____
☐ No

Freeze media (please list base media, serum and additives; if commercially available, please list commercial name and supplier):

_____

_____

SECTION 5: CHARACTERIZATION OF UNDIFFERENTIATED iPSC LINE

Was immunostaining done?

☐ Yes
☐ No

Was RT-PCR done?
☐ Yes
☐ No

mRNA or protein expression detected for:

☐ GDF3	☐ NANOG	☐ SSEA3	☐ TRA-1-81
☐ KLF4	☐ POU5F1 (Oct4)	☐ SSEA4	☐ Other (please specify): _____
☐ LIN28A	☐ REX01	☐ TERT	
☐ MYC (c-Myc)	☐ SOX2	☐ TRA-1-60	

Was this iPSC line tested for genomic integration of reprogramming vectors?
☐ Yes
☐ No

What method was used to test for integrations?

_____

Was genomic integration of reprogramming vectors detected in this iPSC line?
☐ Yes
☐ No

What was the copy number of any integrated reprogramming vector components?

_____

SECTION 6: CHARACTERIZATION OF iPSC DIFFERENTIATION POTENTIAL

Has this iPSC line been assessed for pluripotency by:
☐ Pluritest™ Performed at (name of facility): _____
☐ Scorecard™
☐ Teratoma formation. Performed at (name of facility): _____

Method(s) of *in vitro* differentiation (indicate all that apply):

☐ Adipocyte differentiation	☐ Hematopoietic differentiation
☐ BMP4-induced differentiation	☐ Neural differentiation (EZ Sphere method)
☐ Cardiomyocyte differentiation	☐ Neural differentiation (retinoic acid)
☐ Dopaminergic neurons (co-culture with PA6 cells)	☐ Pancreatic differentiation
☐ Embryoid body formation	☐ Other (please specify): _____
☐ Endodermal differentiation	

Differentiation of this iPSC line was assessed by:

☐ Immunostaining	☐ Both
☐ RT-PCR	☐ Other (please specify): _____

SECTION 7: ADDITIONAL CHARACTERIZATION

Was cytogenetic testing performed?
☐ Yes

☐ No

If yes:

1. At what passage? _____
2. Provide the karyotype (current ISCN nomenclature): _____
3. What test methodology was used (FISH, aCGH, etc.)? _____

Has this iPSC line been characterized for a specific mutation? (e.g., point mutation, trinucleotide repeat)?

☐ Yes
☐ No

If yes, please describe the results (gene 1: allele 1; gene 1: allele 2; gene 2; allele 1; gene 2: allele 2) and reference sequence ID, if known: _____

_____

Has this iPSC line been genotyped (e.g., DNA microarrays or array CGH)?

☐ Yes
☐ No

If yes, please indicate the platform(s) used and provide link to data, if available:

_____

Has this iPSC line undergone other characterization(s) (e.g., transcriptome, epigenome, etc.)?

☐ Yes
☐ No

If yes, please indicate the platform(s) used and provide link to data, if available:

_____

Has this iPSC line undergone DNA fingerprinting?

☐ Yes
☐ No

Was mycoplasma detected in this iPSC line?

☐ Yes ☐ Not tested
☐ No

Please provide any other relevant information regarding this cell line (e.g., does this cell line have any other transgene, fluorescent reporter or other modification? If yes, please provide details):

_____

_____

SECTION 8: PARENTAL CELL SOURCE

Parental cell source (name of biobank, clinical site, etc.): _____

If the parental cells (e.g., fibroblast, blood) ARE banked in Coriell Cell Repositories (Coriell), provide the Coriell ID (2 letters followed by 5 numbers): _____

If the parental cells were NOT obtained from Coriell, please complete APPENDIX 1 (page 7).

SECTION 9: RELEASE, PERMISSION, AND CONSENT

Has IRB-approved informed consent been obtained from the sample donor?

☐ Yes
☐ No

Is an unsigned copy of this consent form attached?

☐ Yes
☐ Not applicable; please describe: _____

Date this iPSC line will be available for submission to the NIA Repository: _____

Were parental cells collected using a consent form allowing general research use of the cells?

☐ Yes
☐ No

Is this iPSC line already banked at Coriell or elsewhere?

☐ Yes; please list organization: _____
☐ No

Number of requests received for this iPSC line: _____

Was the sample donor consented for biobanking with an external biobank?

☐ Yes
☐ No

Do you wish to request release of this iPSC line only to yourself or your designee during the first 12 months following submission?

☐ Yes
☐ No

To your knowledge, are there restrictions that would limit redistribution of this iPSC line?

☐ Yes
☐ No

Please explain any restrictions that would limit redistribution of this iPSC line:

_____

_____

Additional comments: _____

_____

_____

The cells and/or DNA derived from submitted samples may be distributed to scientists for many different types of research. The cells from submitted samples may also be used to create modified cell lines.

Scientists may use sample(s) submitted to the NIA Aging Cell Repository ("NIA Repository") to study the sample donor's DNA and may share what they learn with other scientists. Data resulting from the use of submitted samples may be used in a research publication. In that event, the sample donor's name or other personally identifying information will not be included, as this information is not available to the scientists.

The sample donor will not be provided with any specific information or results generated from research using his/her specimen. However, there is a small possibility that the sample donor could learn that a sample described in research came from him/her and indirectly learn information about his/her sample.
If the sample donor informs me that he/she no longer wish to have his/her sample(s) in the NIA Repository, I may contact the NIA Repository Project Manager by phone or by e-mail and request that the donor's remaining undistributed sample(s) and accompanying clinical information be withdrawn from the NIA Repository. However, it will not be possible to destroy samples and information that have already been distributed to researchers, and it will not possible to remove any mention of my sample(s) in publications.

Unless a sample has been submitted directly to the NIA Repository by a sample donor, the NIA Repository does not store the sample donor's name or any other personally identifying information. Therefore, any request for sample withdrawal must be made through me. As the investigator sending the donor's sample to the NIA Repository, only I may have the link between the sample donor's identity and his/her sample. I understand that a sample donor will be able to withdraw his/her sample ONLY if I have the link between the donor's name and the Sample ID Number(s) submitted to the NIA Repository.

I agree NOT to share with anyone the link between the NIA Repository catalog identification number and personally identifying information from the donor of the sample being submitted to the NIA Repository.

I understand that no financial compensation or medical benefits will be extended to the individual from whom the sample was collected or to the sample submitter.

I hereby grant permission for cells from this sample to be stored in the NIA Repository and for progeny cells, derived DNA and other products (such as RNA) to be distributed to qualified investigators in academic or commercial laboratories. Scientists are strictly prohibited from distributing the cell lines directly derived from NIA Repository samples, or material directly isolated from them, in commercial products or services. However, scientists may use information learned from studies on the sample(s) to develop commercial products or services. (See the NIA Aging Cell Repository Assurance Form for provisions regarding distribution of materials derived from your submission.)

I certify that none of the cell cultures submitted to the NIA Repository has been obtained from a live fetus, defined by the presence of a pulse, circulation, and other vital signs.

Submitting Investigator's Name (printed): _____

Submitting Investigator's Address: _____

_____

Telephone #: _____

Fax #: _____

E-mail: _____

Submitting Investigator's Signature: _____ **Date:** ____/ ____/ ____

APPENDIX 1: DATA FOR PARENTAL CELLS/SAMPLE DONOR NOT AT CORIELL

If the parental cells were NOT obtained from Coriell, please:
- **Complete section below**
- **Provide a sample of cells or DNA from the parental cell line for identity confirmation and chromosomal analysis (optional).**

Sample type submitted for identity confirmation:
☐ Cells
☐ DNA

Parental cell or DNA ID number: _____

Parental cells tissue type (skin, blood, etc.): _____

Parental cells tissue site (lung, arm, etc.): _____

Parental cell line type (lymphoblast, fibroblast, etc.): _____

Age of sample donor at time of sample collection: _____

☐ Days ☐ Years ☐ Unknown
☐ Weeks ☐ Fetal weeks
☐ Months ☐ Newborn

Phenotypic sex of sample donor:
☐ Male ☐ Ambiguous
☐ Female

Ethnicity of sample donor:
☐ Hispanic ☐ Unknown
☐ Non-Hispanic

Race of sample donor:
☐ American Indian/Alaskan Native ☐ White/Caucasian
☐ Asian ☐ Unknown
☐ Black/African American ☐ Other (please specify): _____
☐ Native Hawaiian/Other Pacific Islander

Phenotype of sample donor (description of donor phenotype relevant to diagnosis):

_____

_____

Source of clinical information (please attach copies of reports/summaries/records):
☐ Autopsy report ☐ Supplied with originating cell line
☐ Genetics Clinic report ☐ Publication
☐ Medical records ☐ Specialist report
☐ Physical exam ☐ Supplied with originating cell line
☐ Primary Care Physician report ☐ Other (please specify): _____

Clinical diagnosis of sample donor (e.g., name of disease, carrier, apparently healthy):

_____

Clinical manifestations summary (or attach a detailed clinical description or case history):

_____
_____
_____

OMIM #: _____

Disease status of sample donor:

☐ Affected ☐ Unknown
☐ Not affected ☐ Not applicable

Is there a family history of this condition?

☐ Yes
☐ No

If yes, and no pedigree is available, please describe the relationship of the sample donor to other affected individuals. Please also briefly describe the phenotype(s) of the affected family member(s):

_____

_____

Have samples from other family members been submitted to the NIA Repository or any other Coriell repository?

☐ Yes
☐ No
☐ Don't know

If yes, please list the relationship to this sample. If known, please also list the Coriell Repository ID or the submitter's name and approximate dates(s) of submission for each family member:

_____

_____

Has cytogenetic testing of a specimen from the sample donor been performed?

☐ Yes
☐ No

If yes: 1. Provide the karyotype (current ISCN nomenclature): _____

2. What test methodology was used (FISH, aCGH, etc.)? _____

Has molecular genetic testing of a specimen from the sample donor been performed?

☐ Yes
☐ No

Has the parental cell line been characterized for a specific mutation (e.g. point mutation, trinucleotide repeat)?

☐ Yes
☐ No

If yes: 1. Describe the results (gene 1: allele 1; gene 1: allele 2; gene 2; allele 1; gene 2: allele 2) and reference sequence ID, if known:

_____

_____

2. What test methodology was used?

☐ PCR ☐ Southern Blot

☐ Sequencing ☐ Other (please specify): _____

Biochemical testing:

☐ Yes

☐ No

If yes: 1. Enzyme(s)/activity level(s): _____

2. Abnormal metabolite(s): _____

Other testing (e.g. imaging, EKG, EEG, biopsy, pathology):

Test/result 1: _____

Test/result 2: _____

Test/result 3: _____

Please add or attach any other relevant information:

_____

_____

_____

_____