UNIVERSITY OF IOWA'S

HUMAN PLURIPOTENT STEM CELL COMMITTEE (hPSCC)

POLICY AND STANDARD OPERATING PROCEDURES

SECTION: **Definitions and References**
ORIGINAL CREATION DATE: September 2010
REVISION DATES:

Definitions:

1. **Adult stem cell** – An undifferentiated cell found in a differentiated tissue that can renew itself and (with limitations) differentiate to yield the specialized cell types of the tissue from which it originated.
2. **Blastocyst** – A preimplantation embryo of 150 cells; consisting of a sphere made up of an outer layer of cells (trophectoderm), a fluid-filled cavity (blastocoel), and a cluster of cells on the interior (inner cell mass).
3. **Chimera** – An organism composed of cells derived from at least two genetically different cell types. The cells could be from the same or separate species.
4. **Differentiation** – The process whereby an unspecialized early embryonic cell acquires the features of a specialized cell, such as a heart, liver, or muscle cell.
5. **Embryo** – In humans, the developing organism from the time of fertilization until the end of the eighth week of gestation, when it becomes known as a fetus.
6. **Embryologist** – A specialist who performs all of the laboratory aspects of assisted human reproductive technologies, endocrinology and andrology in an IVF clinic setting. This includes egg preparation, egg identification, sperm preparation, fertilization, micro-manipulation, embryo incubation, and embryo preparation for transfer.
7. **Embryonic stem (ES) cells** – Pluripotent cells that are derived from early stage embryos, up to and including the blastocyst stage, are capable of dividing without differentiating for a prolonged period in culture, and are known to develop into cells and tissues of the three primary germ layers.
8. **Fertilization** – The process whereby male and female gametes unite to form a zygote (fertilized egg).
9. **Gamete** – A mature male or female germ cell, that is, sperm or oocyte, respectively.
10. **Human embryonic stem (hES) cell** – Human embryonic stem cell; a type of pluripotent stem cell.
11. **Human pluripotent stem (hPS) cell** – Induced pluripotent stem cell made from a human somatic cell.
12. **Human subject** – A living individual about whom an investigator conducting research obtains (1) data through intervention or interaction with the individual; or (2) identifiable, private information.

13. **Human subjects research** – Any research or clinical investigation that involves human subjects.
14. **Induced pluripotent stem (iPS) cell** – Somatic (embryonic, fetal, or adult) cells reprogrammed to enter an embryonic stem cell-like state by being forced to express factors important for maintaining the "stemness" of embryonic stem cells.
15. **Institutional Animal Care and Use Committee (IACUC)** – Committee charged with reviewing the use of animals in research, testing, teaching and related activities.
16. **Institutional Biosafety Committee (IBC)** – Committee charged with reviewing research involving use of recombinant DNA (rDNA) molecules, infectious agents and select agents.
17. **Institutional Review Board (IRB)** – A group of individuals charged with reviewing proposed research involving human subjects to ensure the protection of those subjects and compliance with federal human subjects' regulations.
18. **In vitro** – Literally, "in glass," in a laboratory dish or test tube; in an artificial environment.
19. **In vitro fertilization (IVF)** – An assisted reproductive technique in which fertilization is accomplished outside the body.
20. **In vivo** – In the living subject; in a natural environment.
21. **Non-registered human embryonic stem cell lines** – hESC lines excluded from the National Institutes of Health (NIH) registry because they do not meet the current *NIH Guidelines*.
22. **Nuclear transfer (NT)** – Replacing the nucleus of one cell with the nucleus of another cell.
23. **Oocyte** – Developing egg; usually a large and immobile cell.
24. **Pluripotent stem cell** – A single stem cell that has the capability of developing cells of all germ layers (endoderm, ectoderm, and mesoderm).
25. **Primitive streak** – The initial band of cells from which the embryo begins to develop. The primitive streak establishes and reveals the embryo's head-tail and left-right orientations.
26. **Provenance** – The place or source of origin.
27. **Registered human embryonic stem cell lines** – hESC lines included on the NIH Human Embryonic Stem Cell Registry, which continues to evolve.
28. **Reproductive Cloning** – The process of using somatic cell nuclear transfer to produce a normal, full grown organism genetically identical to the organism that donated the somatic cell nucleus.
29. **Somatic cells** – Any cell of a plant or animal other than a germ cell or germ cell precursor.
30. **Somatic cell nuclear transfer (SCNT)** – The transfer of a cell nucleus from a somatic cell into an egg (oocyte) whose nucleus has been removed. The newly nucleated egg is then stimulated, prompting it to take on the genetic and molecular characteristics of a fertilized ovum.
31. **Stem cell** – A cell that can self-renew and give rise to a more committed progenitor.

References:

1. **Department of Health and Human Services**, National Institutes of Health Guidelines on Human Stem Cell Research, National Institute of Health, July 2009.
2. **National Academies of Science – National Research Council and Institute of Medicine**, Guidelines for Human Embryonic Stem Cell Research, National Academies Press: 2005, and subsequent amendments.

SECTION: **Institutional Authority and Responsibilities**
ORIGINAL CREATION DATE: September 2010
REVISION DATES: October 2015

Introduction:
The Vice President for Research has established a program to provide oversight of Human Pluripotent Stem Cell research at the University of Iowa and a committee- Human Pluripotent Stem Cell Committee (hPSCC) to review such research. The following list identifies contributing institutional organizations involved in the oversight and review of applicable human stem cell activities and their corresponding responsibilities within the program.

1. Office of the Vice President for Research (OVPR)
   a. The Assistant Vice President for Research Compliance, who is the Institutional Official (IO), has responsibility for the University of Iowa (UI) Human Pluripotent Stem Cell Program.
   b. The IO oversees institutional compliance with applicable federal regulations, state statutes and regulations, and University policies and procedures relating to human stem cell activities.
   c. The IO selects and appoints members of the hPSCC.
   d. The IO may recommend to the Vice President for Research suspension or termination of human pluripotent stem cell protocols, subject to the overriding responsibilities of the IRB.
   e. The IO provides adequate resources in support of the hPSCC and communicates regularly with the hPSCC Chair on issues related to human stem cell activities.
   f. The IO will provide reports to the Vice President for Research as needed and other campus officials, as required.

2. Human Pluripotent Stem Cell Committee (hPSCC) Responsibilities
   a. hPSCC provides scientific and ethical review of all UI research projects involving human pluripotent stem cells.
   b. hPSCC provides local oversight of all issues related to derivation and research use of human embryonic stem (hES) cell lines.
   c. hPSCC reviews all new and continuing UI research projects involving human embryonic stem cells at least annually for compliance with applicable federal, state, and UI requirements.
   d. hPSCC provides local oversight of research with human pluripotent stem (hPS) cells in experiments with the intent or potential to yield gametes (oocytes or sperm) or with the intent or potential to integrate these cells into the central nervous system of animals.
   e. hPSCC maintains a registry of all hES cell research conducted and hES cell lines derived, imported or maintained at the University of Iowa, including the NIH-approved hES cell lines.
   f. hPSCC will evaluate the adequacy of the documentation for the provenance of human embryonic stem cells lines including evidence of IRB review and approval as well as approval of the procurement process.
   g. hPSCC reviews are designed to facilitate education of investigators involved in hES and hPS cell research.

h. hPSCC will complement existing review functions (e.g., IRBs) by providing an additional level of review and scrutiny warranted by the complex issues raised by hES cell research (including the review of basic hES cell research using pre-existing anonymous cell lines that does not require consideration by an IRB).

3. Institutional Review Board (IRB) Committee Responsibilities
   a. The IRB reviews, approves, requires modifications in, or disapproves human stem cell activities that meet the federal definitions of human subject research and/or clinical investigation.
   b. The IRB reviews, approves, requires modifications in, or disapproves the procurement of gametes, blastocysts (embryos), fetal tissue or somatic cells for the purpose of deriving new pluripotent stem cell lines, including the procurement of blastocysts in excess of clinical need from infertility clinics. [Note: currently the NIH will not fund research involving (1) the creation of blastocysts through in vitro fertilization specifically for research purposes, or (2) oocytes, sperm and somatic cells donated for development of human embryonic cell lines through nuclear transfer.]
   c. The IRB reviews, approves, requires modifications in, or disapproves human stem cell activities to ensure proper consent from the donors of sperm, oocytes, or somatic cells used to make blastocysts for research.
   d. The IRB reviews, approves, requires modifications in, or disapproves human stem cells activities to assure the privacy of donors in accordance with HIPAA regulations for use of personal health information for research purposes.
   e. The IRB reviews, approves, requires modifications in, or disapproves proposed modifications to approved pluripotent human stem cell research.
   f. The IRB may suspend or terminate approved human stem cell research under its jurisdiction.
   g. The IRB reviews and reports human stem cell research noncompliance in accordance with campus policy for resolving allegations of regulatory noncompliance.

4. Institutional Animal Care and Use Committee (IACUC) Responsibilities
   a. The IACUC is responsible for reviewing all animal use protocols, ensuring compliance with federal regulations, inspecting animal facilities and laboratories, and overseeing training and education programs.
   b. The IACUC is charged to ensure the ethical and humane care and use of animals in research, testing, teaching and related activities.
   c. The IACUC must review and approve all human stem cell activities that involve animals prior to initiation of the study.

5. Institutional Biosafety Committee (IBC) Responsibilities
   a. The IBC is responsible for overseeing work involving biological agents, recombinant DNA, and select agents and toxins regulated either by Department of Health and Human Services (DHHS) or by the United States Department of Agriculture (USDA).
   b. The IBC assures that research involving these agents is conducted in a manner that meets all applicable safety, legal and ethical requirements.

c. The IBC must review and approve all IBC relevant human stem cell activities prior to initiation of the study.

6. Environmental Health and Safety (EHS) Office Responsibilities
   a. EHS serves as the office of record for the UI Human Pluripotent Stem Cell Program. It maintains the official records of approved hPSCC activities and a database of investigators conducting human pluripotent stem cell activities.
   b. EHS supports and coordinates all activities of the program and serves as the liaison between hPSCC, other regulatory oversight committees, and the UI research community, specifically the EHS office:
      i. Facilitates the protocol review process.
      ii. Communicates to investigators in writing, on behalf of hPSCC, all Committee actions.
      iii. Provides training, education, and consultative services on human pluripotent stem cell research review requirements.
      iv. Communicates to the IO any study-related issues that are likely to present risks or other concerns for the institution.
      v. Communicates with other UI administrative units and regulatory committees conducting administrative audits of alleged occurrences of regulatory noncompliance in collaboration with the IRBs in accordance with campus policy.
      vi. Assists with the conduct of regulatory committee reviews in accordance with campus policy.
      vii. Reports to the IO and governmental agencies any significant problems or violations of federal regulations, hPSCC or IBC requirements.
   c. EHS coordinates the regulatory committee approval process and assures hPSCC review has been completed before human pluripotent stem cell research is allowed to commence.
   d. EHS develops policies (or revisions of policies) for the conduct of human pluripotent stem cell research in consultation with the hPSCC and IRB.

SECTION:	**Review and Oversight of Human Pluripotent Stem Cell Research**
ORIGINAL CREATION DATE:	September 2010
REVISION DATES:	October 2015

Policy:

The University of Iowa (UI) is committed to the highest ethical standards and responsible use of human embryonic stem cell (hES) in research. In furtherance of this commitment, the UI established a Human Pluripotent Stem Cell Committee (hPSCC) that provides local oversight of ethical issues related to derivation and research use of human embryonic stem cells as well as oversight of research with human pluripotent stem (hPS) cells in experiments designed or expected to yield gametes (oocytes or sperm) or with the intent to integrate these cells into the central nervous system (CNS) of animals. This oversight responsibility is completed through its review and approval process for all proposed uses of human embryonic stem cells. The committee's review will be conducted in accordance with general principles expressed in the *Guidelines for Human Embryonic Stem Cell Research* (National Academies' of Science, 2005) and its subsequent amendments, as well as adhering to the *NIH Guidelines on Human Stem Cell Research* that became effective July 7, 2009.

1. Activities that May be Permitted after Review by the UI hPSCC
    a. Research involving all established hES cell lines listed on the National Institutes of Health (NIH) Human Embryonic Stem Cell Research Registry (http://stemcells.nih.gov/research/registry/).
    b. Research with all established hES cell lines that are not currently listed on the NIH Registry.
    c. All new hES cell lines derived from the following sources:
        i. blastocysts made for reproductive purposes and later obtained for research from in vitro fertilization (IVF) clinics, with consent of donor.
    d. Research with human pluripotent stem (hPS) cells designed to yield gametes or integrate cells into the CNS of animals.

2. Other Regulatory Committee Reviews
    a. Activities that are reviewed and approved by UI hPSCC may require additional review by UI's IRB, IACUC, IBC and the CIRC, as required.

3. Prohibited Activities Involving Human Embryonic Stem Cells
    a. Derivation of new hES cell lines by nuclear transfer [Note: this research is currently prohibited by the NIH].
    b. Research involving in vitro culture of any intact human embryo, regardless of the derivation method, for longer than 14 days or beyond formation of the primitive streak.
    c. Research in which hES cells are introduced into non-human primate blastocysts or in which any embryonic stem cells are introduced into human blastocysts.
    d. Research that involves breeding of any animal into which hES cells have been introduced (at any stage of development).

e. Blastocysts made specifically for research using IVF [Note: this research is currently prohibited by the NIH].
f. Somatic cell nuclear transfer (NT) into oocytes without intent to create a hES cell line.
g. Reproductive cloning of human beings; this prohibition specifically includes any use of SCNT to produce a human being.
h. The sale of hES cells. This prohibition does not limit the University from paying or charging the reasonable costs associated with the transfer of cell lines from one location to another, including license fees justified by such costs.

4. hPSCC Functions
   a. Serve as a clearinghouse for hES cell research proposals and assist investigators in identifying the types and levels of review required for a given protocol.
   b. Ensure that the provenance of hES cells is documented. This includes confirming evidence that the procurement process was approved by an IRB to ensure adherence to the basic ethical and legal principles of informed consent and protection of confidentiality.
   c. Maintain a registry of hES cell lines in use, a list of investigators working in this field, and descriptive information on the types of hES cell research in which the investigators are engaged.
   d. Maintain a tracking system for research involving the use of hPS cells that has been reviewed by the committee.

5. hPSCC Approval and Oversight
   a. hPSCC shall have the authority to review, approve, require modifications in, or deny approval of all research activities involving hES cells engaged in by UI. Approval will be for a period of three years with annual review.
   b. In making its determination, the hPSCC will consider the following:
      i. Conformity with all applicable state and federal laws, regulations, and guidelines and all applicable University policies; and
      ii. The anticipated risks, benefits and significance of the knowledge to be gained, and,
      iii. The qualifications and training of the investigator and key personnel to conduct the research.
   c. Research activities using hES cells that require review and approval by other UI committees, i.e., IACUC, IBC, IRB, should be simultaneously submitted to the hPSCC. Simultaneous submissions are not required, but suggested to facilitate approvals.
   d. The hPSCC shall conduct continuing reviews of approved studies at intervals that it deems appropriate. The hPSCC may obtain and review materials submitted to other committees.
   e. The hPSCC shall have the authority to observe or have a third party observe the conduct of any research activity subject to hPSCC oversight. The hPSCC has the authority to request all records associated with the conduct of the research.

6. Non-Compliance
   a. Alleged deviations from UI hPSCC policies should be reported to the hPSCC chair for investigation, resolution and reporting to the IO. Allegations may be shared as appropriate with

other UI committees with shared jurisdiction (IRB, IACUC, IBC). The hPSCC shall have the authority to suspend or terminate its approval of hES cell research that is not being performed in compliance with hPSCC policies, University policies, applicable state or federal regulations and/or the general principles expressed in the NAS *Guidelines for Human Embryonic Stem Cell Research*.

b. The hPSCC, through the IO, shall report suspension or termination of research to external funding sources, if applicable.

SECTION:	**Committee Composition, Member Responsibilities and Training**
ORIGINAL CREATION DATE:	April 2010
REVISION DATES:	October 2015

Procedure:
This procedure provides guidance in forming the UI Human Pluripotent Stem Cell Committee (hPSCC) and defines its responsibilities.

1. Composition of the hPSCC
   a. The hPSCC will include an independent representative of the lay public as well as persons with expertise in developmental biology, stem cell research, molecular biology, assisted reproduction, and ethical and legal issues in hES cell research. The hPSCC will be composed of at least 5 voting members with the following characteristics:
      i. A community member not affiliated with The University of Iowa
      ii. A UI member with expertise in bioethics and/or law.
      iii. A UI member with regulatory expertise
      iv. A UI member/s who is a practicing physician
      v. A UI member/s with expertise developmental biology, molecular biology and scientific expertise in hES cell research.
   b. The hPSCC will also include two (2) non-voting ex officio members:
      i. An Assistant Vice President for Research
      ii. A member of the Office of General Counsel
   c. Alternate members may be appointed to provide depth of available expertise, as required.
   d. The hPSCC will have one Chair who is appointed by the IO. The hPSCC Chair serves as the official representative of the hPSCC and is responsible for leading hPSCC meetings.

2. hPSCC Member Appointment
   a. The IO appoints the hPSCC Chair and members.

3. Compensation
   a. hPSCC members serve as volunteers (without compensation).

4. Specific Duties
   a. Duties of hPSCC Members
      i. hPSCC members are expected to make every effort to attend hPSCC meetings so that protocols may be reviewed.
      ii. In the event that a member is unable to attend, sufficient advance notice must be provided to the hPSCC Administrator so that alternate arrangements can be made as necessary.
      iii. Members are to disclose any potential conflict of interest to the hPSCC Administrator or Chair as soon as it is recognized.

iv. Members are to maintain confidentiality of hPSCC meeting proceedings and any information contained in protocol reviews.
v. Members must have an understanding of UI policy and procedures regarding human stem cell research.

b. Duties of hPSCC Chair
i. hPSCC Chair convenes hPSCC meetings.
ii. hPSCC Chair facilitates communications and dissemination of information from the IO to hPSCC members and to researchers.
iii. hPSCC Chair calls special meetings when necessary.
iv. hSPCRO Chair acts as an advisor in the institution's research community.
v. hPSCC Chair may delegate any of his/her responsibilities, as appropriate, to other qualified and duly appointed members of hPSCC.

5. Conflict of Interest
a. No hPSCC member, consultant, or ad hoc reviewer may participate in the review of any project in which the reviewer has a real or perceived conflict of interest or any other relationship that may be inappropriate for objective review, except to provide information requested by the hPSCC. Examples of conflicting relationships include but are not limited to serving as the principal investigator, co-investigator or an employment relationship.

6. Orientation and Training
a. New hPSCC member orientation
i. All new members will receive a packet that includes the following materials prior to their first meeting:
1. hPSCC member appointment letter
2. Member standards document for signature
3. Schedule of committee meetings and submission deadlines
4. hPSCC Standard Operating Policies and Procedures
5. Guidelines and Regulations: NAS *Guidelines for hESC Research*, NIH *Guidelines on Human Stem Cell Research*

b. Ongoing training
i. Ongoing training will consist of relevant articles forwarded to members via email and discussions conducted at regular hPSCC meetings regarding new issues as they become relevant.

SECTION: **Committee Review and Approval Process of Human Pluripotent Stem Cell Research**

ORIGINAL CREATION DATE: April 2010
REVISION DATES: September 2015

Policy:
The hPSCC will accept for review and approval proposals for research in the following categories:

1. Research that is permissible after notification of the hPSCC and completion of the reviews mandated by current requirements. This includes:
   a. In vitro experiments involving the use of already derived and coded hES cell lines will not need review beyond the notification of the hPSCC and the completion of other reviews mandated by current requirements, e.g., Institutional Animal Care and Use Committee (IACUC), Institutional Biosafety Committee (IBC) or other institutionally mandated review. The hPSCC notification must include documentation of the provenance of all hES cell lines. Notice should include evidence of IRB approval of the procurement process and of adherence to basic ethical and legal principles of procurement. In the case of lines being imported from another institution, documentation that these criteria were met at the time of derivation will suffice.

2. Research that is permissible only after full review and approval. This includes:
   a. All research involving the introduction of hES cells into non-human animals at any stage of embryonic, fetal, or postnatal development. Such review must also include the results of the IACUC review of animal welfare issues. The hPSCC must consider the consequences of the human contributions to the resulting chimeras.
   b. Research in which personally identifiable information about the donors of the blastocysts, gametes, or somatic cells from which the hES cells were derived is linked to the cell lines.
   c. Research using non-federally approved hES cell lines.
   d. Derivation of new hES cell lines from donated blastocysts from in vitro fertilized oocytes.

3. Research which is permissible only after additional review and approval. This includes:
   a. Research involving the introduction of hPS cells from non-embryonic sources, or cells derived from such hPS cells into an animal, when one expected effect is that the human cells will be integrated into the central nervous systems, testes, or ovaries of the animal.

Procedures:
This procedure provides guidance for the review and approval of protocols by the UI Human Pluripotent Stem Cell Committee (hPSCC).

1. <u>hPSCC Registration Document Review Sequence</u>

   a. Registration document submitted by Principal Investigator (PI).
   b. hPSCC administration determines review type.

c. Review is completed by hPSCC administration and/or full hPSCC, as required.
d. If necessary, hPSCC administration will communicate with PI for additional information requested by hPSCC.
e. hPSCC administration ensures approved registration document is signed by the Chair and sends the signed document to the PI.

2. Category 1: Administrative Review
   a. hPSCC administration reviews and approves protocols that meet the following criteria:
      i. Additional staff members are added to a previously approved protocol in which no changes have been made to the design or scope of the project.

3. Category 2: Designated Review
   a. One or more hPSCC members review and approve protocols that meet the following criteria:
      i. Research projects only involve in vitro experiments with federally approved hES cell lines (NIH Human Embryonic Stem Cell Registry: http://grants.nih.gov/stem_cells/registry/current.htm), human iPS cells or hPS cells.
      ii. Research projects only involve in vitro experiments with derived and coded hES cell lines.
         1. Documentation must include provenance of all hES cell lines, evidence of IRB approval of the procurement process and of adherence to basic ethical and legal principles of procurement. In the case of hES cell lines being imported from another institution, documentation that these criteria were met at the time of derivation will suffice.
      iii. Minor changes or additions were made, as requested by hPSCC members, to a previously reviewed registration document.
      iv. Minor amendments are requested to a previously approved registration document that change the design or scope of the project.

4. Category 3: Full hPSCC Committee Review
   a. Full hPSCC Committee review and approval is required for protocols that meet the following criteria:
      i. Research involving the introduction of any human iPS cells or hPS cells, including hES cells, into non-human animals; consideration will be given to the contribution of human cells to the resulting chimeras.
      ii. Research in which personally identifiable information about the donors is linked to the hES cell line.
      iii. Research using non-federally approved hES cell lines.
      iv. Derivation of new hES cell lines from donated blastocysts from in vitro fertilized oocytes.
      v. Research involving the use of hPS cells expected to yield gametes or with the intent or potential to integrate these cells into the CNS of animals.

5. Full hPSCC Review Sequence
   a. The Biosafety Office receives the initial Stem Cell Registration Document (SCRD) that outlines the research for which a PI is requesting approval.

b. hPSCC Administrator reviews the SCRD for completeness and requests additional information from the PI, as necessary.
c. Protocols are batched and sent to hPSCC members via email, approximately 7 days before each scheduled meeting.
d. A meeting is convened for review and discussion of submitted SCRDs and other committee business. Committee, based on majority vote, determines if document is
    i. Approved
    ii. Approved with contingencies
    iii. Compliance with recommendation to be confirmed by hPSCC Administrator or designated review
    iv. Tabled
    v. Not approved
e. hPSCC Administrator enters review status and date on SCRD, ensures SCRD is signed by Chair or generates a list of questions/recommendations for the PI.
f. PI addresses deficiencies or recommendations.
g. SCRDs not approved are re-reviewed at the next committee meeting after revised SCRD has been submitted.
h. Meeting minutes are transcribed, reviewed and approved by the hPSCC Chair, distributed to all members, and kept on file in the Biosafety Office.
i. An email notification of approval and a copy of the SCRD signed by the hPSCC Chair are sent to the PI, Co-PIs, and IRB irb@uiowa.edu.
j. For all protocols involving the VAMC (whether through VA funding or if the work will be done by a UI researcher in VA laboratory space), a copy of the approved SCRD is sent to Kalli Thomsen at the VAMC, Research Building.
k. All correspondence and documentation are kept on file in the Biosafety Office.

6. **Annual Review of Approved Registration Documents**
    a. Approved SCRDs will be reviewed annually for two years and expire three years after initial approval.
        i. One year after initial approval and again one year hence, a memorandum will be sent to the PI by the hPSCC Administrator with a request that he/she review the previously-approved project.
        ii. The PI must return the memorandum, marking one of the following responses:
            1. the project is inactive;
            2. the project no longer involves hES, human iPS or hPS cells;
            3. the project is active with no changes; or
            4. the project is active and changes are anticipated, e.g., changes in funding source or animals used (the changes must be specified).
        iii. When a PI indicates on the signed memo that changes as listed above are planned, the hPSCC will be consulted, as necessary, regarding the need for hPSCC review.
        iv. Three years after initial approval, a memo will be sent to the PI stating that the project was approved three years ago and can only be renewed by submitting a newly-completed

SCRD. The memo must be returned, either indicating that the project is not active or, if the research is to continue, a new SCRD will be submitted.

SECTION: **Establishing Eligibility of Human Embryonic Stem Cells for Research with NIH Funding**

ORIGINAL CREATION DATE: May 2010

REVISION DATES:

Procedures:

This procedure outlines the IRB Responsibilities as described in Section II (A) of the *NIH Guidelines on Human Stem Cell Research*.

Applicant institutions proposing research using hESCs derived from embryos donated in the U.S. on or after the effective date of the *Guidelines* may use hESCs that are posted on the new NIH Registry or they may establish eligibility for NIH funding by submitting an assurance of compliance with Section II (A) of the *Guidelines* (included below), along with supporting information demonstrating compliance for administrative review by the NIH.

For the purposes of this section, hESCs should have been derived from human embryos:

1. that were created using in vitro fertilization for reproductive purposes and were no longer needed for this purpose;
2. that were donated by individuals who sought reproductive treatment (hereafter referred to as "donor(s)") and who gave voluntary written consent for the human embryos to be used for research purposes; and
3. for which all of the following can be assured and documentation provided, such as consent forms, written policies, or other documentation, provided:
    a. All options available in the health care facility where treatment was sought pertaining to the embryos no longer needed for reproductive purposes were explained to the individual(s) who sought reproductive treatment.
    b. No payments, cash or in kind, were offered for the donated embryos.
    c. Policies and/or procedures were in place at the health care facility where the embryos were donated that neither consenting nor refusing to donate embryos for research would affect the quality of care provided to potential donor(s).
    d. There was a clear separation between the prospective donor(s)'s decision to create human embryos for reproductive purposes and the prospective donor(s)'s decision to donate human embryos for research purposes. Specifically:
        i. Decisions related to the creation of human embryos for reproductive purposes should have been made free from the influence of researchers proposing to derive or utilize hESCs in research. The attending physician responsible for reproductive clinical care and the researcher deriving and/or proposing to utilize hESCs should not have been the same person unless separation was not practicable.
        ii. At the time of donation, consent for that donation should have been obtained from the individual(s) who had sought reproductive treatment. That is, even if potential donor(s) had given prior indication of their intent to donate to research

any embryos that remained after reproductive treatment, consent for the donation for research purposes should have been given at the time of the donation.

iii. Donor(s) should have been informed that they retained the right to withdraw consent for the donation of the embryo until the embryos were actually used to derive embryonic stem cells or until information which could link the identity of the donor(s) with the embryo was no longer retained, if applicable.

e. During the consent process, the donor(s) were informed of the following:
   i. that the embryos would be used to derive hESCs for research;
   ii. what would happen to the embryos in the derivation of hESCs for research;
   iii. that hESCs derived from the embryos might be kept for many years;
   iv. that the donation was made without any restriction or direction regarding the individual(s) who may receive medical benefit from the use of the hESCs, such as who may be the recipients of cell transplants.;
   v. that the research was not intended to provide direct medical benefit to the donor(s);
   vi. that the results of research using the hESCs may have commercial potential, and that the donor(s) would not receive financial or any other benefits from any such commercial development;
   vii. whether information that could identify the donor(s) would be available to researchers.

Applicant institutions proposing research using hESCs derived from embryos donated in the U.S. before the effective date of these *Guidelines* may use hESCs that are posted on the new NIH Registry or they may establish eligibility for NIH funding in one of two ways:

1. By complying with those requirements listed above (Section II (A) of the Guidelines); or

2. By submitting materials to a Working Group of the Advisory Committee to the Director (ACD), which will make recommendations regarding eligibility for NIH funding to its parent group, the ACD. The ACD will make recommendations to the NIH Director, who will make final decisions about eligibility for NIH funding.

   The materials submitted must demonstrate that the hESCs were derived from human embryos: 1) that were created using in vitro fertilization for reproductive purposes and were no longer needed for this purpose; and 2) that were donated by donor(s) who gave voluntary written consent for the human embryos to be used for research purposes.

   The Working Group will review submitted materials, e.g., consent forms, written policies or other documentation, taking into account the principles articulated in Section II (A), 45 C.F.R. Part 46, Subpart A, and the following additional points to consider. That is, during the informed consent process, including written or oral communications, whether the donor(s) were: (1) informed of other available options pertaining to the use of the embryos; (2) offered any inducements for the donation of the embryos; and (3) informed about what would happen to the embryos after the donation for research.

SECTION: **Program Records Maintenance and Retention**
ORIGINAL CREATION DATE: April 2010
REVISION DATES:

Policy:
The hPSCC administrator prepares and maintains adequate documentation of hPSCC activities. All documents supporting hPSCC submissions will be maintained in the Biosafety Office of EHS.

1. Protocol Files
   a. The committee shall maintain a complete file of each hES, human iPS, and hPS cell study including the application, supporting documentation, correspondence, etc.

2. hPSCC Minutes
   a. The committee shall maintain copies of meeting minutes. Minutes must document attendance, committee vote, disclosed conflicts of interest, summary of committee discussion, controversial issues and their resolution.

3. Retention of Records
   a. Records shall be retained in accordance with UI policies, applicable laws, regulations and guidelines.