

Policy on Human Stem Cell Research

Issuing Department:
Office of Science & Research

Policy # ESCRO-1 Effective Date: March 2010 Last Update: August 3, 2017

I. Policy Summary

NYU Langone Health encourages qualified investigators to engage in responsible and ethical research requiring the use and derivation of human embryonic stem cells, human totipotent or pluripotent cells, human neural progenitor stem cells, human gonadal progenitor stem cells, and human induced pluripotent stem cells (collectively, "Human Stem Cells"), provided the cells are obtained and the research is conducted with appropriate oversight and in accordance with all applicable laws, rules and regulations. At the same time, certain activities relating to Human Stem Cells are expressly prohibited and others require registration with and/or review by NYU Langone Health's Embryonic Stem Cell Research Oversight (ESCRO) Committee as provided in this Policy.

II. Policy Purpose

Research using Human Stem Cells is essential to expanding fundamental scientific knowledge of cellular and developmental human biology. Such research, however, raises important scientific and ethical questions, which have resulted in restrictions on the use of federal and state funds for certain research involving such cells. In light of these concerns and to comply with applicable federal and state laws and regulations, NYU Langone Health has established this Policy. The goals of this Policy are to assure that:

- **A.** NYU Langone Health is aware of and provides oversight over and review of all research involving the procurement, derivation, banking, distribution, and use of Human Stem Cells conducted at or under the auspices of NYU Langone Health or funded by NYU Langone Health;
- **B.** Every person at the NYU Langone Health working on such research is fully aware of the compliance requirements associated with such research;
- **C.** NYU Langone Health observes the federal government's current restrictions against use of federal funds on non-registered hESC lines;
- **D.** NYU Langone Health complies with any special requirements for such research imposed by research sponsors;
- **E.** NYU Langone Health is aware of and maintains a registry documenting the sources or derivation of any Human Stem Cell lines planned for use or being used in research at NYU Langone Health; and
- **F.** NYU Langone Health establishes oversight of the ESCRO Committee, which is charged with reviewing and approving research protocols involving the procurement, derivation, banking, distribution, or use of Human Stem Cells.

NYU Langone Health's requirements for the conduct of research with Human Stem Cells as set forth in this Policy are based in large part on and intended to comply, as applicable, with (i) federal requirements and limitations with respect to federally-funded human stem cell research as set forth in the "National Institutes for Health Guidelines on Human Stem Cell Research" promulgated July 6, 2009, (ii) state requirements and limitations with respect to state-funded research as reflected in the Empire State Stem Cell Board Contract Policy Statements and Conditions (rev. approved 6/27/12), (iii) the recommendations

of the National Academies in its 2005 report (as amended in 2007, 2008 and 2010) entitled "Guidelines for Human Embryonic Stem Cell Research", and (iv) the recommendations of the International Society of Stem Cell Research in its 2016 report entitled "Guidelines for the Conduct of Human Embryonic Stem Cell Research", as each may be amended from time to time.

III. Policy Scope and Applicability

This Policy applies to all research involving the procurement, derivation, banking, distribution, or use of Human Stem Cells conducted at or under the auspices of NYU Langone Health or funded by NYU Langone Health, and to all other research conducted at or under the auspices of NYU Langone Health or funded by NYU Langone Health that is subject to oversight by the ESCRO Committee pursuant to law, regulation, or the terms of funding.

This Policy does not apply to research involving fetal tissue or stem cells derived from human adults, umbilical cord blood, placentas, or fetuses, or research involving any other type of human cells, unless the experiments are designed or expected to yield gametic cells or tissues or the research is otherwise subject to oversight by the ESCRO Committee pursuant to law, regulation, or the terms of funding.

IV. Definitions

For purposes of this Policy, the following definitions shall apply:

- **A.** "Adult Stem Cell" means an undifferentiated cell, found among differentiated cells in a tissue or organ, that can renew itself and can differentiate to yield primarily some or all of the specialized cell types of the tissue or organ, but the cell itself is not pluripotent or totipotent.
- **B.** "Blastocyst" means a pre-implantation embryo of about 150 to 250 cells produced by successive rounds of cell division following fertilization. The blastocyst is a sphere made up of an outer layer of cells (the trophoblast), a fluid-filled cavity (the blastocoel), and a cluster of cells on the interior (the inner cell mass).
- **C.** "Chimera" means an organism composed of cells derived from at least two genetically different zygotes. Theoretically, the zygote could be from separate species.
- **D.** "Cloning" means the asexual production of a line of cells that is genetically identical to the originating cell.
- **E.** "**Embryo**" means an organism in the early stages of growth and differentiation.
- **F.** "ESCRO Committee" means NYU Langone Health's Embryonic Stem Cell Research Oversight Committee, established by the Senior Vice President and Vice Dean for Science of NYU Langone Health.
- **G.** "ESCRO Registration" means the registration of Human Stem Cell Research as described in Section V(D) below.
- **H.** "hESC(s)" or "human embryonic stem cell(s)" means one or more cells that are derived from the inner cell mass of blastocyst-stage human embryos, are capable of dividing without differentiating for a prolonged period in culture, and are known in appropriate conditions to to develop into cells and tissues of the three primary germ layers (endoderm, ectoderm and

- mesoderm) as well as germ cells. These human embryos include those generated by fertilization, parthenogenic activation or somatic cell nuclear transfer.
- **I.** "hESC Research" means research involving the procurement, derivation, banking, distribution, or use of hESCs.
- **J.** "Human embryo" means the embryo of a human, generally defined as extending from the time of the formation of the Zygote until the end of the first eight weeks of gestation. Human embryos may be derived from fertilization, parthenogenesis, cloning, or other means from one or more gametes or human cells.
- **K.** "Human embryonic germ cell(s)" means the cells found in a specific part of the human embryo or human fetus called the gonadal ridge that normally develop into mature gametes.
- **L.** "Human Stem Cell" means any human embryonic stem cells, human totipotent or pluripotent cells, human neural progenitor stem cells, human gonadal progenitor stem cells, and induced pluripotent stem cells.
- **M.** "Human Stem Cell Research" means research involving the procurement, derivation, banking, distribution, or use of Human Stem Cells at or under the auspices of NYU Langone Health or any other research at or under the auspices of NYU Langone Health that is subject to oversight by the ESCRO Committee pursuant to law, regulation or the terms of funding.
- **N.** "iPSC(s)" or "induced pluripotent stem cell(s)" means one or more human pluripotent stem cells that have been derived from non-embryonic sources, such as spermatogonial stem cells and "induced" pluripotent stem cells derived from somatic cells by introduction of genes or otherwise, and other pluripotent stem cells yet to be developed.
- **O.** "Intact human embryo" means a human embryo that is developing in an integrated, normal fashion and continuing to progress and otherwise capable of progressing into a fully-developed human.
- **P.** "Morula" means a solid mass of 16–32 human embryo cells that resembles a mulberry and results from the cleavage (cell division without growth) of a zygote (fertilized egg).
- **Q.** An "**NIH Eligible hESC line**" means a stem cell line posted on the NIH hESC Registry or a stem cell line for which an institution has established eligibility for NIH funding under the NIH Stem Cell Guidelines.
- **R.** "NIH hESC Registry" means the current list of hESC lines, as it may from time to time be revised, that are eligible for federal funding.
- **S.** An "**NIH Ineligible hESC line**" means any hESC line other than an NIH Eligible hESC line.
- **T.** "NIH Stem Cell Guidelines" means the "National Institutes for Health Guidelines on Human Stem Cell Research" (2009 and subsequent updates).
- **U.** "NYU Langone Health" includes NYU Langone Health System, NYU Langone Hospitals, NYU School of Medicine, and all entities that are controlled by any of them.

- **V.** "Pluripotent stem cell" means a stem cell having the capacity of developing cells of all germ layers (endoderm, ectoderm and mesoderm) as well as germ cells.
- W. "Provenance" means sufficient documentation, on the basis of usual and customary standards within the field of Human Stem Cell Research, to authenticate the history of ownership and place of origin of hESCs and/or hESC lines and/or iPSCs and/or iPSC lines.
- **X.** "**Reproductive cloning**" means the use of cloning for the purpose of creating one or more adult organisms that are all genetically identical to another organism.
- **Y.** "SCNT" means somatic cell nuclear transfer, a technique that combines an enucleated egg and the nucleus of a somatic cell to make an embryo.
- **Z.** "Spindle transfer" means the process in which chromosomes from one oocyte are transferred into a recipient enucleated egg to make an embryo.
- **AA.** "Stem cell" means a cell with the ability to divide for indefinite periods in culture and to give rise to specialized cells.
- **BB.** "Stem cell line" means a mass of cells descended from and retaining at least some of the characteristics of an original stem cell.
- **CC.** "**Totipotent stem cell**" means a stem cell having the ability to give rise to all the cell types of the body plus all of the cell types that make up the extraembryonic tissues, such as the placenta.
- **DD.** "**Zygote**" means a cell formed by the union of male and female germ cells (sperm and egg, respectively).

V. Policy

- **A.** Compliance. All Human Stem Cell Research conducted at or under the auspices of the NYU Langone Health or funded by the NYU Langone Health shall be conducted in compliance with (i) this Policy, (ii) all applicable federal, state, and local laws, regulations, and policies, (iii) the terms of any grant, contract, agreement, or other funding supporting the Human Stem Cell Research, and (iv) all other applicable New York University and NYU Langone Health policies, including, where applicable, the policies and procedures of NYU Langone Health's IRB.
- **B.** Prohibited Activities. No NYU Langone Health facilities, equipment or other resources, including funding, shall be used for any of the following:
 - 1. Human Stem Cell Research <u>requiring or using federal funds</u> if such research is ineligible for federal support under the NIH Stem Cell Guidelines;
 - 2. human reproductive cloning;
 - 3. research involving *in vitro* culture of any post-fertilization human embryos or organized cellular structures that might manifest human organismal potential, regardless of derivation method, for longer than 14 days or until formation of the primitive streak, whichever occurs first;

- 4. research in which any products of research involving human totipotent or pluripotent stem cells are implanted into a human or non-human primate uterus;
- 5. research in which animal chimeras incorporating Human Stem Cells, including but not limited to hESCs and iPSCs, with the potential to form gametes are bred to each other; or
- 6. Human Stem Cell Research engaged in a manner that is contrary to any applicable federal, state or local laws, rules or regulations or the terms of the grant or other support.
- C. Categories of ESCRO Review. There are two types of ESCRO Committee review: ESCRO Registration and full ESCRO Committee review and approval. The type of review depends on the nature of the research activity. ESCRO Registration entails merely registering the research protocol with the ESCRO Committee, the official record of all hESC research at NYU Langone Health, in accordance with policies and procedures to be developed and promulgated by the ESCRO Committee. Full ESCRO Committee review is a lengthier process that requires both registering the research protocol with the ESCRO Committee and evaluation and approval of the research protocol by the ESCRO Committee
- **D. ESCRO Registration**. The following categories of Human Stem Cell Research are subject to ESCRO Registration only:
 - 1. *In vitro* research using hESC lines that are listed on the NIH hESC Registry.
 - 2. *In vitro* research using hESC lines or iPSC lines that have been pre-approved for such use by the ESCRO Committee:
 - 3. In vitro research using Human Stem Cells, if:
 - a. Institutional Review Board (IRB) review approval has been received (i.e., the cells were obtained by a process approved by an IRB to ensure that donor(s) provided voluntary informed consent in accordance with then current federal and state law, regulations, and guidelines), and
 - b. The cell lines have been de-identified (i.e., the cell lines and any corresponding information are anonymous or are coded in such a manner that the donor(s) cannot be identified (by the investigators or others) directly or indirectly through identifiers linked to the donor(s), pursuant to a written agreement obtained from the source of the cell lines stating that the identity of the donor(s) will not be released to the investigator under any circumstances);
 - 4. Research involving the transplantation of non-totipotent and non-pluripotent Human Stem Cells or cells derived from non-totipotent and non-pluripotent Human Stem Cells into human subjects (In no case shall such research involve implantation of human totipotent or pluripotent stem cells into a human uterus (See Section V(B)(4) above); clinical research in which cells of human totipotent stem cells or iPSCs are transplanted into living human subjects requires ESCRO Committee Review (See Section V(C)(7) above)); and
 - 5. Other types of Human Stem Cell Research that the Vice Dean for Science (or her designee) has made a written determination, after due consideration of the likely risks and benefits of such research, that such categories are permissible without the additional review of the ESCRO Committee.

To determine whether proposed research meets the requirements of this section, the ESCRO Committee may choose to conduct an "expedited review" of such research proposals by the ESCRO Committee chair or his or her designee.

- **E. ESCRO Committee Review Required**. All hESC research—regardless of the type or source of the hESCs—and certain other Human Stem Cell Research is subject to ESCRO Committee review and approval. Examples of activities requiring ESCRO Committee review include but are not limited to:
 - 1. Creation of a new hESC line by any means, including through use of SCNT, human zygotes, spindle transfer, or a human embryo furnished by an *in vitro* fertilization clinic or other lawful source;
 - 2. Payment to a donor solely for the purpose of creating a human embryo to be used in hESC research;
 - 3. Research in which personally identifiable information about the donor of the blastocysts, morulae, gametes, or somatic cells from which the hESCs or iPSCs were derived is readily ascertainable or might become known to the investigator;
 - 4. Research using NIH Ineligible hESC lines that have not been pre-approved for such use by the ESCRO Committee;
 - 5. iPSC research that includes experiments designed or expected to yield gametic cells and tissues;
 - 6. Mixing human totipotent stem cells or iPSCs with pre-implantation human embryos (*In no case shall such experiments be allowed to progress for more than 14 days of development* in vitro, or past the point of primitive streak formation, whichever is first (See Section V(B)(3) above));
 - 7. Clinical research in which cells of human totipotent or pluripotent stem cells or iPSCs are transplanted into living human subjects (In no case shall such research involve implantation of human totipotent or pluripotent stem cells into a human uterus (See Section V(B)(4) above);
 - 8. In *vitro* culture of an intact human embryo;
 - 9. Research that generates animal chimeras using human cells, including, but not limited to, introducing hESCs, human totipotent stem cells or iPSCs into animals other than humans or primates at any stage of embryonic, fetal, or postnatal development; and
 - 10. Research that involves the introduction of hESCs into non-human primates at any stage of fetal or postnatal development.

Research that is not described in Section V(E), but is subject to ESCRO Registration under Section V(D), does not require full ESCRO Committee review and approval.

F. Research and Activities That Do Not Require ESCRO Registration. Unless otherwise provided in the terms of the grant, contract, agreement, or other funding supporting the research and/or other activities, the following research and/or other activities are not subject to this Policy:

- 1. Use of non-Human Stem Cells:
- 2. Use of fetal tissue or stem cells derived from human adults or umbilical cord blood, placentas, or fetuses, or research involving any other type of human cells, unless the experiments are designed or expected to yield gametic cells or tissues;
- 3. Transplantation of stem cells as part of a standard of care or other recognized and accepted medical treatment for a disease or condition (*Transplantation of Human Stem Cells as part of a Human Subjects Research project subject to IRB review or as part of innovative care that departs in a significant way from standard or accepted practice may require ESCRO Registration (see Section V(C)(7) above), ESCRO Committee review (see Section V(D)(4) above), or be prohibited (see Section V(B)(4) above));*
- 4. The creation and ex vivo passage of iPSCs. (ESCRO Registration and ESCRO Committee review and approval are required if the iPSCs are pluripotent stem cells and are transferred into an animal or human, or are used to make an embryo.); and
- 5. Other categories of Human Stem Cell Research or activities that the Vice Dean for Science (or her designee) has made a written determination, after due consideration of relevant legal and ethical requirements, that such research or activities are appropriate for exemption from ESCRO Registration.

G. ESCRO Committee.

- 1. **Purpose**. The ESCRO Committee is responsible for the initial and ongoing review and oversight of all Human Stem Cell Research at or under the auspices of NYU Langone Health. No use of Human Stem Cells in research, including the derivation of hESCs for research from any source, shall be initiated by or for NYU Langone Health prior to registration of the proposed research with the ESCRO Committee and, for those activities described in Section V(E) above, the review and approval of the ESCRO Committee.
- 2. **Authority.** The ESCRO Committee shall have general authority to review, approve, conditionally approve, require modifications of, or disapprove all research proposals requiring review under this Policy. The ESCRO Committee shall also have the authority to establish and enforce applicable ethical research standards pertaining to all Human Stem Cell Research at or under the auspices of NYU Langone Health.
- 3. **Composition.** The ESCRO Committee shall be composed of at least three (3) voting members designated by the Vice Dean for Science, who shall collectively have adequate scientific, medical and ethical training and experience, including at least one scientist with relevant expertise and one ethicist present at each meeting, so as to promote the appropriate review of Human Stem Cell Research as required under this Policy. It is expected that the members will be sufficiently diverse, including consideration of race, gender and background, and will be sensitive to such issues as community attitudes, as to promote respect for its advice and counsel.
- 4. Responsibilities. The ESCRO Committee's review of individual Human Stem Cell Research proposals shall be specific to the scientific and ethical issues presented by such proposals. ESCRO Committee review and approval shall be deemed to be separate from and in addition to any other reviews or approvals otherwise required at NYU Langone Health for such

research, including but not limited to committees or administrative offices having responsibility for review and approvals of human subjects' research, animal research, biological safety, radioactive materials, and environmental safety.

- 5. Conflicts of Interest. The members of the ESCRO Committee shall comply with all NYU and NYU Langone Health policies related to conflict of interest, including NYU Langone Health Policies on Conflict of Interest, Commitment and Consulting. In accordance with such policies, a member of the ESCRO Committee must recuse himself or herself from participating in the initial or continuing review of any project in which the member has a conflicting interest, except to provide information requested by the ESCRO Committee.
- **6. Relationship to IRB.** The duties and responsibilities of the ESCRO Committee shall be distinct and separate from the IRB, and to the extent practical, the subject matter of the reviews by the IRB and ESCRO Committee should not overlap. Notwithstanding the foregoing, each of the IRB and the ESCRO Committee shall provide the other with any reports of adverse or unexpected outcomes that pose a threat to the health or safety of any individual or raise new ethical issues that arise during or after the completion of any Human Stem Cell Research project.
- 7. **Administrative Support**. NYU Langone Health's Office of Science & Research will provide necessary administrative support for the ESCRO Committee.
- 8. **Record-keeping**. The Office of Science & Research shall secure and maintain the records of the ESCRO Committee in a manner consistent with the record-keeping requirements of the NYU Langone Health's IRB. In addition, the ESCRO Committee shall develop and adhere to policies for maintaining records relating to the Provenance of all Human Stem Cell lines, consent of gamete donors, applicable ethical research standards, and reports of adverse or unexpected outcomes that pose a threat to the health or safety of any individual or raise new ethical issues.

H. Procurement and Transfer of hESCs, hESC Lines, iPSCs and iPSC Lines.

- 1. Investigators shall procure hESCs, hESC lines, iPSCs and iPSC lines in a manner consistent with this Policy and NYU Langone Health's purchasing and material transfer rules and regulations. Upon procurement, the principal investigator having authority over such newly-acquired hESCs, hESC lines, iPSCs and iPSC lines shall promptly transmit to the ESCRO Committee any information required to enter the hESCs, hESC lines, iPSCs and iPSC lines into NYU Langone Health's hESC/iPSC registry described in Section V(J) below.
- 2. hESCs, hESC lines, iPSCs and iPSC lines shall only be transferred to other investigators, both at NYU Langone Health and outside NYU Langone Health, with the written approval of the ESCRO Committee and in a manner consistent with the provisions of this Policy and other applicable NYU Langone Health rules and regulations.
- 3. Transfers of hESCs, hESC lines, iPSCs or iPSC lines to investigators outside NYU Langone Health are subject to the requirements on material transfer described in Section V(M) below. As a condition to any transfer outside of NYU Langone Health, the recipient must submit a certification to NYU Langone Health that any research to be conducted with the transferred hESCs, hESC lines, iPSCs or iPSC lines will be performed in compliance with all relevant laws and other restrictions related to such hESCs, hESC lines, iPSCs or iPSC lines.

I. New hESC Lines/iPSC Lines.

1. Creation of New hESC/iPSC Lines. The ESCRO Committee and the IRB shall review and approve any proposal to procure gametes, blastocysts, morulae or somatic cells for the purpose of generating new hESC lines or new iPSC lines. It is expected that the creation of new hESC lines and new iPSC lines will comply with all requirements set forth in the Empire State Stem Cell Board Contract Policy Statements and Conditions so that such new stem cell lines meet all requirements for eligibility for state-funded research. Furthermore, any new hESC lines and new iPSC lines should comply with all requirements set forth in the NIH Stem Cell Guidelines so that such new hESC lines meet all requirements for eligibility of such stem cell lines for Human Stem Cell Research with NIH funding as set forth in the NIH Stem Cell Guidelines. Federal funding, however, must not be used in the derivation of new hESC lines.

In addition, principal investigators involved in the creation of hESC lines or iPSC lines must also (i) maintain adequate records in order to enable NYU Langone Health and the principal investigator to demonstrate the provenance of such hESC lines or iPSC lines and consent of gamete donors, (ii) report to the ESCRO Committee, IRB and any other NYULMC safety committee with applicable jurisdiction, any adverse or unexpected outcomes that pose a threat to the health or safety of any individual or raise new ethical issues for any Human Stem Cell Research project, (iii) transmit promptly following creation any information required by the ESCRO Committee to include the newly created hESC lines or iPSC lines into NYU Langone Health hESC/iPSC registry described in Section V(J) below, and (iv) refrain from making any use or permitting any transfer of the new hESC lines or iPSC lines until approval from the ESCRO Committee, as described in this Policy, is obtained.

2. Use of New hESC Lines/iPSC Lines. Before using any hESC line or iPSC line that is new to NYU Langone Health, irrespective of source, the principal investigator must ascertain the provenance of the hESC line, including whether the hESC line originated from an NIH Eligible hESC line, or the provenance of the iPSC line. For these purposes, presence on the NIH hESC Registry constitutes adequate documentation of provenance.

In conducting Human Stem Cell Research involving the new hESC line or the new iPSC line, the following rules must be followed:

- a. <u>hESC lines Derived from NIH Eligible hESC lines</u>. hESC lines created from an NIH Eligible hESC line may be used for federally funded and non-federally funded research, provided that the subsequent use is consistent with this Policy and the terms of the grant or other support provided to create the hESC line and the terms of the grant or other supporting the research.
- b. <a href="https://hexample.com/hexample.co
- c. <u>iPSC lines</u>. iPSC lines may be used for federal funded and non-federally funded research, provided that the subsequent use is consistent with the terms of this Policy and the grant

or other support provided to create the iPSC line and the terms of the grant or other support supporting the research.

- J. Establishment of the NYU Langone Health hESC/iPSC Registry. Through the establishment of a centralized registry prescribed by the ESCRO Committee, NYU Langone Health will maintain a record of all hESC lines and iPSC lines, including newly created hESC lines and iPSC lines, kept at or under the auspices of NYU Langone Health. NYU Langone Health hESC/iPSC registry will be supported and maintained within NYU Langone Health's Office of Science & Research and will contain information the source and Provenance of the hESC lines and the iPSC lines, the status of the hESC lines on the NIH hESC Registry, the location of the hESC lines and iPSC lines, the name of the investigators responsible for the safekeeping of the hESC lines or iPSC lines, the disposition of the hESC lines or iPSC lines, and such other information the ESCRO Committee deems appropriate.
- K. Establishment of NYU Langone Health hESC/iPSC Research Database. Through the establishment of a centralized database prescribed by the ESCRO Committee, NYU Langone Health will maintain a record of all hESC research and all iPSC research occurring in NYU Langone Health facilities or involving NYU Langone Health investigators. The NYU Langone Health hESC/iPSC research database will be supported and maintained within NYU Langone Health's Office of Science & Research.
- L. Investigator Compliance Training. Before conducting Human Stem Cell Research, investigators are required to be familiar with applicable NYU Langone Health and other compliance policies, rules and regulations governing such activity, including this Policy. The ESCRO Committee will recommend to the Vice Dean for Science (or her designee) an investigator compliance training program that will be sufficient to demonstrate knowledge of these policies. The content of such training shall include information on categories of Human Stem Cell Research, requirements for ESCRO Committee reviews, documentation of compliance, permitted and prohibited use of federal funds, human subjects research issues, and such other matters the ESCRO Committee deems appropriate.
- M. Material Transfers. Incoming and outgoing transfers of Human Stem Cells, including hESCs, hESC lines, iPSCs, iPSC lines, and other materials, shall be documented through material transfer agreements approved by NYU Langone Health's Office of Industrial Liaison, which shall be consistent with any related research funding terms.

VI. Policy Enforcement

Violations of this Policy are subject to disciplinary action, up to and including termination of employment or association with NYU Langone Health, in accordance with NYU Langone Health disciplinary policies and procedures applicable to the individual in question.

VII. Version History

This Policy replaces NYU Langone Health's *Policy on Human Pluripotent Stem Cell Research* dated September 2012, which replaced NYU Langone Health's *Policy on Human Stem Cell Research* dated May 2010 and updated November 2010.

May 2010 Original Policy
November 2010 Update #1
September 2012 Update #2
August 3, 2017 Current Version