

Memorandum of Understanding

between

The Regents of the University of California

and

Public Health Service

U.S. Department of Health and Human Services

This Memorandum Of Understanding (hereinafter "Agreement"), effective April 26, 2002 by and between the Public Health Service of the U.S. Department of Health and Human Services as represented by the Office of Technology Transfer, having an address at National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852, United States ("PHS") and The Regents of the University of California on behalf of the University of California San Francisco, acting through its Office of Technology Management having an address at 1294 Ninth Avenue, Suite 1, Box 1209, San Francisco, CA 94143-1209 ("UC"). PHS and UC are referred to herein as the "Parties".

WHEREAS specific human embryonic stem cell line materials, their unmodified and undifferentiated progeny and unmodified and undifferentiated derivatives ("Material") have been derived consistent with the Presidential Statement of August 9, 2001, from the research efforts of Dr. Meri Firpo, Dr. Roger Pedersen, and Juanito Meneses of the University of California San Francisco with funds provided by the State of California under the University of California Discovery Grant/BioSTAR Project and Geron Corporation ("Sponsor") under a Sponsored Research Agreement; and

WHEREAS the Material was made using funds provided by the State of California and Sponsor, and as such, their ownership is not subject to any rights or obligations previously granted to the NIH; and

WHEREAS property rights in the Material are owned by UC, and Sponsor has an exclusive license to UC's property rights and intellectual property rights embodied in or directly related to the Material for commercial use; and

WHEREAS the Material is or may be subject to patent rights owned by the WiCell Research Institute ("WiCell") concerning primate embryonic stem cells and their cultivation as claimed in U.S. Patent 5,843,780, U.S. Patent 6,200,806, U.S. Patent Application 09/522,030 and corresponding U.S. or foreign patent rights and any patents granted on any divisional and continuation applications, reissues and reexaminations ("Wisconsin Patent Rights"); and

WHEREAS UC has entered into a Memorandum of Understanding with WiCell effective April 24, 2002, under which UC has the requisite permission from Wisconsin to make the Material available to investigators at non-profit institutions under this Agreement; and

WHEREAS PHS has a basic mission on behalf of the U.S. Government for the conduct and support of health research performed at its own facilities or through funding agreements to other institutions ("Recipient Institutions"); and

WHEREAS PHS funded primate research studies at the University of Wisconsin - Madison that led to certain discoveries claimed in Wisconsin Patent Rights, and therefore the Government has certain use and other rights to the intellectual property comprising the Wisconsin Patent Rights granted by law and regulation that may be applicable for the use of the Material; and

WHEREAS PHS has received permission to use Wisconsin Patent Rights under the terms and conditions of its September 5, 2001 Memorandum of Understanding with WiCell; and

WHEREAS UC desires to serve the public interest by making the Material widely available to PHS and researchers at other non-profit institutions.

NOW, THEREFORE, the Parties hereby agree to the following terms and conditions regarding use of UC Material:

1. The Parties agree that the Material is to be made available by UC for use in specified PHS biomedical research programs, either by PHS or on behalf of PHS by its specified contractors under the terms and conditions specified in the attached Institution Material Transfer Agreement.
2. UC agrees that it shall make the Material available for use by non-profit Recipient Institutions and offer such Institutions the attached Institution Material Transfer Agreement or terms no more restrictive to govern the exchange of the Material.
3. Notwithstanding any terms of this Agreement, nothing herein shall be construed to diminish or supercede any rights or authorities available to PHS as a U.S. government agency. The provisions of this Agreement and the obligations hereunder with respect to the Material shall continue as long as the Material continues to be used by PHS or its Contractors.

4. Nothing contained herein shall be considered to be the grant of a commercial license or right under the Material. Furthermore, nothing contained herein shall be construed to be a waiver of UC property rights in the Material.

IN WITNESS WHEREOF, the Parties agree to the foregoing and have caused this Agreement to be executed by their duly authorized representatives.

The Regents of the University of California

By: _____

Name: _____

Title: _____

Public Health Service:

By: _____

Name: _____

Title: _____

INSTITUTION MATERIAL TRANSFER AGREEMENT

The Regents of the University of California, on behalf of the University of California San Francisco, ("UCSF") agrees to provide the following institution: [_____] ("Recipient") with human embryonic stem cell line ____, requested by Recipient for use by its scientist, [_____] ("Recipient Scientist"), subject to the terms and conditions set forth in this Institution Material Transfer Agreement (the "Agreement").

Background

1. Human embryonic stem cell line [] (together with its unmodified and undifferentiated progeny and unmodified and undifferentiated derivatives, the "Material") has been derived consistent with the Presidential Statement of August 9, 2001, from the research efforts of Dr. Meri Firpo, Dr. Roger Pedersen, and Juanito Meneses (collectively, "Investigator") of UCSF with funds provided by the State of California under the University of California Discovery Grant/BioSTAR Project and Geron Corporation ("Sponsor") under a Sponsored Research Agreement (the "Research Agreement").

2. The Material is or may be subject to patent rights owned by the University of Wisconsin or its affiliates ("Wisconsin") concerning primate embryonic stem cells and their cultivation as claimed in U.S. Patent 5,843,780, U.S. Patent 6,200,806, U.S. Patent Application 09/522,030 and corresponding U.S. or foreign patent rights and any patents granted on any divisional and continuation applications, reissues and reexaminations ("Wisconsin Patent Rights"). Sponsor has an exclusive license to Wisconsin Patent Rights for commercial use in certain fields of use.

3. Property rights in the Material are owned by UCSF, and Sponsor has an exclusive license to UCSF's property rights and intellectual property rights embodied in or directly related to the Material for commercial use. Sponsor is an intended and express third party beneficiary of this Agreement.

4. The Regents of the University of California has entered into a Memorandum of Understanding with WiCell Research Institute effective April 25, 2002, under which UCSF has the requisite

permission from Wisconsin to make the Material available to academic investigators under this Agreement.

5. UCSF, Wisconsin and Sponsor would like to make the Material broadly available to academic investigators for research purposes.

Terms and Conditions

1. Recipient agrees to use the Material solely for use in Recipient Scientist's research as set forth in the descriptive title attached as **Exhibit A** (the "Research"), which will be shared with Sponsor by UCSF.

2. The Material is the property of UCSF subject to the commercial license rights of Sponsor, and is made available as a service to the research community by UCSF. Legal title to the Material shall be unaffected by this Agreement or the transfer made hereunder, and nothing in this Agreement grants Recipient any rights under any patents or other intellectual property rights or tangible property rights of UCSF, Wisconsin, or Sponsor, including, but not limited to, Wisconsin Patent Rights. Wisconsin is and shall be an intended and express third party beneficiary of this Agreement, and nothing contained in this Agreement shall constitute a grant of a commercial license or right under the Wisconsin Patent Rights. Furthermore, nothing contained herein shall be construed to be a waiver by Wisconsin of the Wisconsin Patent Rights. This Agreement does not restrict UCSF's or Sponsor's rights to distribute the Material to other researchers at academic or non-profit institutions.

3. Recipient and Recipient Scientist shall maintain the confidentiality of any proprietary information that is provided by UCSF under this Agreement. Such information will be labeled as "confidential" or "proprietary" at the time it is provided to Recipient or Recipient Scientist. The confidentiality obligations set forth in this Agreement shall not apply to information that Recipient or Recipient Scientist can document: (a) was known to Recipient or Recipient Scientist prior to the disclosure of such information under this Agreement; (b) is or becomes generally available to the public through no fault of Recipient or Recipient Scientist; (c) is subsequently made available to Recipient or Recipient Scientist from any third party that is not under any obligation of confidentiality to

UCSF; (d) is developed independently by Recipient or Recipient Scientist, without use of any proprietary information of UCSF; and (e) Recipient or Recipient Scientist is required to disclose by a court of law, or under federal regulations, or applicable laws, in which case, Recipient or Recipient Scientist agrees to provide prompt written notice to UCSF and to take reasonable steps to enable UCSF to seek a protective order or otherwise prevent disclosure of such information.

4. The transfer of the Material constitutes a non-exclusive license to use the Material solely for conduct of the Research under the direction of Recipient Scientist. Recipient will not use the Material (including any Material wholly or partially contained or incorporated in any Derivative Material (as defined below)) in experiments other than the Research. **Commercial use of the Material or any Derivative Material which wholly or partially contains or incorporates the Material is strictly prohibited.** Use of the Material and any Derivative Material which wholly or partially contains or incorporates the Material for commercial purposes may only be undertaken pursuant to licenses from a) Wisconsin and b) Sponsor, which neither of these parties shall have an obligation to grant.

5. In the course of the Research, Recipient may create Derivative Material. "Derivative Material" shall be defined as any materials or products a) that are physically derived from the Materials, including, without limitation, differentiated cell lines or populations derived from the Material, and any unmodified products of such cell lines or populations (i.e., RNA, DNA, proteins, cellular components or fragments thereof), or b) that wholly or partially contain or incorporate the Material. Inventorship of any Derivative Material, whether or not patentable, will be determined according to the principles of U.S. patent law. Subject to any obligation of the inventors to assign ownership of inventions or Derivative Materials to Recipient in accordance with applicable regulations or Recipient's policies, ownership will follow inventorship.

6. Recipient and Recipient Scientist agree that the Material and any Derivative Material which wholly or partially contains or incorporates the Material will not be used in research that is or becomes subject to consulting, licensing, or similar obligations to any commercial entity, except pursuant to a license obtained in accordance with the last sentence of Paragraph 4. In no event will the Material or any Derivative Material which wholly or partially contains or incorporates the Material be used in

research a) sponsored by a for-profit entity, either through supply of materials or funding, except as such research sponsor i) is permitted to use Wisconsin Patent Rights under a separate written agreement with Wisconsin; or ii) receives no rights, whether actual or contingent, in or to the results of the sponsored research; or b) sponsored by a private non-profit entity, either through supply of materials or funding, except as such sponsor is i) permitted to use Wisconsin Patent Rights under a separate written agreement with Wisconsin; or ii) receives no commercial rights, whether actual or contingent, in or to the results of the sponsored research. Notwithstanding the foregoing, no such research sponsor shall receive any rights to the Material. Further, the provider of third party proprietary research material may restrict the use of Derivative Material, including the use of Derivative Material which contains or incorporates the Material, by Recipient, UCSF and Sponsor, solely to the extent that the proprietary research material of the provider is contained or incorporated in such Derivative Material.

7. Recipient and Recipient Scientist agree to use the Material and any Derivative Material which wholly or partially contains or incorporates the Material under suitable handling, containment, and storage conditions and in compliance with all applicable statutes, regulations and guidelines relating to their handling, use or disposal. Material and any Derivative Material which wholly or partially contains or incorporates the Material shall not be used for diagnostic or therapeutic purposes. Recipient and Recipient Scientist agree not to (i) mix the Materials with an intact human embryo; (ii) implant the Materials in a human uterus; or (iii) attempt to make whole human embryos with Materials or any Derivative Material which wholly or partially contains or incorporates the Material by any method. An Annual Certification Statement in the form attached hereto as **Exhibit B**, confirming compliance with the restrictions on the use of Material and any Derivative Material which wholly or partially contains or incorporates the Material, shall be supplied to UCSF by Recipient and Recipient Scientist.

8. Neither Recipient Scientist nor Recipient nor any other person authorized to use the Material under the Agreement shall make available any portion of the Material or any Derivative Material which wholly or partially contains or incorporates the Material to any person or entity other

than laboratory personnel under the Recipient Scientist's immediate and direct control. The Material and any Derivative Material which wholly or partially contains or incorporates the Material will not be distributed to others without UCSF's written consent after a Material Transfer Agreement in this form has been executed.

9. The Recipient shall refer any request for the Material to UCSF. To the extent supplies are available, UCSF agrees to make the Material available to other scientists for teaching or non-commercial research purposes only, under a separate Institution Material Transfer Agreement in this form and in any event under terms no more restrictive than those set forth herein. For Derivative Material in which UCSF has an ownership interest pursuant to the last sentence of Paragraph 5, UCSF and Recipient will jointly prepare a mutually acceptable material transfer agreement for transfer of such Derivative Materials to other scientists. UCSF will inform Sponsor of, and Sponsor shall be entitled to receive a copy of, any material transfer agreement used for the transfer of any Derivative Material which wholly or partially contains or incorporates the Material.

10. UCSF or Recipient may terminate this Agreement at any time, in which case Recipient and Recipient Scientist will discontinue, within thirty (30) days after notice of such termination, its use of the Material. On or before the expiration of such thirty (30) day period, Recipient and Recipient Scientist agree, upon direction of UCSF, to return or destroy the Material. Any further research use by Recipient or Recipient Scientist of Derivative Materials which wholly or partially contain or incorporate the Materials shall be subject to all terms and conditions of this Agreement. If this Agreement is terminated by UCSF for material breach by Recipient of this Agreement, Recipient agrees that any Material and/or Derivative Material which wholly or partially contains or incorporates the Material will immediately be returned to UCSF or destroyed. The provisions of Paragraphs 2, 3, 6, 9-14, 16 and 17 of the Terms and Conditions shall survive any termination of this Agreement.

11. The Material is experimental in nature and shall be used with prudence and appropriate caution, since not all of its characteristics are known. THE MATERIAL IS PROVIDED WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A

PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED. UCSF MAKES NO REPRESENTATION OR WARRANTY THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHT.

12. In the event that a journal publication or scientific article is published based on use of the Material or Derivative Material, Recipient Scientist will make reasonable efforts to provide Sponsor with a copy of such publication, or the publication cite, promptly after it becomes available to Recipient Scientist, by sending it to Sponsor at the following address: Geron Corporation, 230 Constitution Drive, Menlo Park, CA 94025, Attn: Corporate Development, fax number (650) 566-7181.

13. Recipient Scientist and Recipient shall acknowledge in any publication of results of the Research (a) UCSF as the source of the Material and (b) that the Material resulted from research conducted by Investigator under the Research Agreement with Sponsor.

14. Upon UCSF's or Sponsor's written request, Recipient agrees to provide, without cost other than reasonable handling and shipping costs, reasonable quantities of any Derivative Materials that wholly or partially contain or incorporate the Materials to UCSF or Sponsor for research purposes only at UCSF or Sponsor under the terms and conditions of a material transfer agreement to be negotiated between Recipient and UCSF, or Recipient and Sponsor, respectively. Such obligation shall apply only after Recipient has publicly disclosed or reasonably characterized such Derivative Materials, and is subject to the last sentence of Paragraph 6, above, with respect to Derivative Materials that contain or incorporate proprietary research material owned and provided by a third party. It is understood that neither the provision by Recipient to UCSF or Sponsor of any Derivative Material that wholly or partially contains or incorporates the Material nor anything else in this Agreement constitutes a grant by Recipient to UCSF or Sponsor of any license or other right which may be necessary to commercialize any Derivative Material created by Recipient.

15. Recipient Scientist and Recipient shall, at the request of UCSF, return or destroy all unused Material.

16. Except to the extent prohibited by applicable law, the Recipient assumes all liability for damages which may arise from the use, storage, handling or disposal of the Material or Derivative Material by Recipient or Recipient Scientist. Further, unless Recipient is an agency or department of the U.S. Government, and except to the extent prohibited by applicable law, Recipient agrees to indemnify and hold harmless UCSF and Sponsor, and their respective trustees, regents, officers, agents, and employees, and Sponsor, from any liability, loss, or damage they may suffer as a result of claims, demands, costs, or judgments against them arising out of the use, storage or disposal of the Material or Derivative Material by the Recipient or Recipient Scientist. Neither UCSF nor Sponsor will be liable to the Recipient for any loss, claim or demand made by the Recipient or the Recipient Scientist, or made against the Recipient or the Recipient Scientist by any other party, due to or arising from the use of the Material or Derivative Material by the Recipient or the Recipient Scientist.

17. Neither UCSF nor Sponsor will release or provide to Recipient or Recipient Scientist any identifiable private information about the Material or the donors of the embryos used to derive the Material, under any circumstances.

18. This Agreement is not assignable or transferable by Recipient.

19. The Material is provided with a transmittal fee solely to reimburse UCSF for its preparation and distribution costs. The amount of the fee for this transfer of Material will be \$5,000/cell line. Payment should be made by check or Purchase Order to "The Regents of the University of California" and should be sent to:

UCSF Office of Technology Management
1294 Ninth Avenue, Suite 1, Box 1209
San Francisco, CA 94143-1209
Attention: ES Cell MTA Coordinator

FOR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

Signature:

Name:

Title:

Date:

FOR RECIPIENT

Note: must be signed by authorized institution official

Signature:

Name:

Title:

Date:

RECIPIENT SCIENTIST

Signature:

Name:

Date:

Address to which the cells should be shipped:

Contact information for the individual responsible for receipt of the cells:

Name: _____

Phone number: _____

Email address: _____

Exhibit A

Descriptive Title

Exhibit B

ANNUAL CERTIFICATION STATEMENT

Annual Certification of Recipient Scientist: I have read and understood the conditions outlined in this Agreement and I understand my obligation as an employee of Recipient to abide by them in the receipt and use of the Material and any Derivative Material which wholly or partially contains or incorporates the Material. I further certify that I have not engaged and will not engage in commercial research using the Material or any Derivative Material which wholly or partially contains or incorporates the Material, where such research is a) sponsored by a for-profit entity, either through supply of materials or funding, except as such research sponsor has i) received a license from Wisconsin under the Wisconsin Patent Rights; or ii) receives no rights, whether actual or contingent, to the results of the sponsored research; or b) sponsored by a private non-profit entity, either through supply of materials or funding, except as such research sponsor has i) received a license from Wisconsin under the Wisconsin Patent Rights; or (ii) receives no commercial rights, whether actual or contingent, to the results of the sponsored research.

Name of Institution: _____

Signature of Recipient Scientist: _____

Print Name of Recipient Scientist: _____

Date: _____

Upon completion of the Research, please complete the following certification:

I have discontinued or completed the Research outlined in Exhibit A and have destroyed all remaining Material and any Derivative Material which wholly or partially contains or incorporates the Material.

Name of Institution: _____

Signature of Recipient Scientist: _____

Print Name of Recipient Scientist: _____

Date: _____

Please sign this form and send it to the following address on or before each anniversary of this Agreement:

University of California, San Francisco
Office of Technology Management
1294 Ninth Avenue, Suite 1, Box 1209
San Francisco, CA 94143-1209
Attention: ES Cell MTA Coordinator