



Prize Announcement for New Chordoma Cell Lines

The mission of the Chordoma Foundation is to rapidly develop effective treatments and ultimately a cure for chordoma, while improving the diagnosis, treatment, and quality of life for people affected by this devastating bone cancer of the skull and spine.

Currently, access to valid chordoma cell lines is a major barrier for chordoma research and treatment development. To overcome this barrier the Chordoma Foundation seeks to create and distribute a panel of at least ten well-characterized chordoma cell lines, each of which faithfully recapitulates the biology of the tumor from which it was derived. Cell lines in this panel should represent the diverse set of clinical manifestations of the disease, including chordomas of the skull-base and spine from primary, recurrent, and metastatic tumors from adult and pediatric patients.

In order to help establish the Cell Line Panel ("Panel") the Chordoma Foundation will offer \$5,000 prizes for each cell line that is selected for inclusion in the Panel. This award is meant to encourage novel and creative approaches to establishing new cell lines. It is also intended to promote biological diversity and avoid homogeneity among the set of cell lines in the panel. ALL investigators, including recipients of Chordoma Foundation research grants, are eligible to receive prize awards

SUBMISSION PROCESS

Any investigator who has created an immortalized cell line derived from a chordoma tumor is invited to submit the cell line for validation and inclusion in the panel. Creators are encouraged to submit cell lines as soon as possible. To achieve standardization among the entire cell line panel, all validation experiments will be carried out in a laboratory designated by the Chordoma Foundation. As of the date of this Prize Announcement, the Chordoma Foundation has contracted with Dr. Michael Kelley at Duke University in Durham, North Carolina to conduct cell line validation experiments in his lab. Cell lines will not be further distributed without the permission of the creator.

Submission of cell lines for inclusion in the Chordoma Foundation Cell Line Panel will proceed as follows:

- 1) Sign and fax to 866-367-3910 the accompanying Letter of Intent indicating your acceptance of the terms and conditions outlined in this Prize Announcement. Alternatively you may mail the letter to:
Simone Sommer, MD, MPH
PO Box 4562
Greensboro, NC 27404-4562
- 2) A Chordoma Foundation representative will contact you to coordinate transfer of the cell line. If necessary, arrange a material transfer agreement between your institution and the designated laboratory governing the use of your cell line.
- 3) Submit early passages of the cell line(s) and any relevant data, tissue, or tissue derivatives to the laboratory designated by the Chordoma Foundation. See Inclusion Criteria below for list of required materials and data.
- 4) Analysis of the cell line will be performed using some or all of the following approaches: gene expression microarrays, array CHG and/or high density genotyping arrays, biomarker expression analysis, and potentially others. The cell line will also be checked for mycoplasma contamination. Data generated for the purpose of validating the cell line will be shared with you.
- 5) If the cell line has characteristics consistent with chordoma, then the data will be presented to the Chordoma Foundation Cell Line Review Committee to be considered for inclusion in the Panel.

The review committee will consider the genetic and biological characteristics of the cell line as well as the clinical manifestation of the originating tumor with the goal of building a panel of 10-15 lines that represent the diverse clinical spectrum of the disease.

- 6) You will be notified in writing by the Chordoma Foundation whether or not your cell line(s) were selected for inclusion in the Panel.
- 7) If a cell line(s) is selected for inclusion in the Panel then the Chordoma Foundation will work with you and your institution to craft a material transfer agreement (MTA) to govern the distribution and use of your cell line.
- 8) Upon finalizing a mutually acceptable MTA, the Chordoma Foundation will issue an award letter and payment form offering you an unrestricted prize for scientific and educational purposes in the amount of \$5000 for each cell line accepted into the Panel.
- 9) Once you complete and return the payment form, the Chordoma Foundation will mail a check to the "Fiscal Officer" address indicated on the payment form.

If you have questions about any aspect of this prize please call 919-809-6779 or email grants@ChordomaFoundation.org

SUBMISSION REQUIREMENTS

For a cell line to be considered for inclusion in the Panel, the following must be submitted:

1. At least two tissue culture flasks or frozen vials containing the immortalized cell line
2. A completely deidentified pathology report from the tumor of origin
3. A copy of the informed consent form used to collect the tumor from which the cell line was derived
4. A description of cell line
 - a. A detailed account of the history of the cell line including initial tumor dissociation and culture method, approximate number of passages, time period over which cells were passaged, any significant changes in phenotype or emergence of subpopulations during passage, or history of microbial contamination
 - b. Any relevant observations about behavior, ideal growth conditions, or warning signs of "unhappy" cells
5. Instructions for culturing the cell line including product information for media and any other reagents.
6. Information about the tumor from which the cell line was derived
 - a. Anatomic location of the chordoma
 - b. Whether the tumor was primary, recurrent, or metastatic
 - c. Date tumor was resected
 - d. Tumor size
 - e. Histological subtype (conventional, chondroid, dedifferentiated)
 - f. Biochemical, cytogenetic, and immunophenotypic data from the tumor
 - g. Indicate if a portion of the tumor was also preserved
7. Information about the patient from which the cell line was derived (if available)
 - a. Demographics: gender, age at diagnosis, race
 - b. Treatment history including prior surgery, chemotherapy, or radiation
 - c. Patient outcome if known. Is the patient alive or deceased?

The following items are requested but not required

1. Several unstained slides from the tumor from which the cell line was derived
2. A frozen and/or paraffin embedded tissue sample from the tumor of origin
3. Nucleic acids derived from the tumor of origin
4. Normal tissue, peripheral blood mononuclear cells and/or DNA from the patient from which the tumor was derived is strongly encouraged to discern somatic from inherited mutations.
5. Any data regarding phenotype (e.g. growth in soft agar or xenografts), genotype, copy number changes, gene expression, protein expression, or other validation experiments conducted on the purported chordoma cell line.

INCLUSION CRITERIA

The cell line will be evaluated for inclusion in the Panel based on the following criteria:

Required Inclusion Criteria

1. All required items (1-7) are submitted as described above
2. Diagnosis of primary tumor is confirmed to be chordoma by an expert pathologist
3. Cell line is human
4. Gender of the cell line matches that of the patient from which it was derived
5. Cell line is not contaminated with another cell line
6. Genotype of the cell line matches that of the primary tumor (if available)
7. Cell line is verifiably free of mycoplasma or other microbial contamination

Recommended Inclusion Criteria

1. The global gene expression pattern of the chordoma cell line, as determined by hierarchical clustering, is substantially similar to the primary tumor and/or other primary chordoma tumors
2. The genome of the cell line contains structural changes consistent with chordomas which generally contain multiple DNA copy number variations
3. Expresses chordoma-specific markers at protein and/or mRNA level: brachyury, CD24, S100, Keratin 8, Keratin 19
4. Maintains physaliferous morphology
5. Doubling time of 5 days or less

PRIZE GUIDELINES AND EXPECTATIONS

In addition to satisfaction of the scientific criteria described above, the Chordoma Foundation has the following guidelines and expectations for cell lines to be included in the cell line Panel.

- Proper consent from the patient must have been obtained to allow for the Chordoma Foundation and any third party's use, storage and distribution of the cell line for all research and development purposes. No profit from any commercial products derived from the cell line(s) shall be returned to the patient.
- The Chordoma Foundation will not distribute cell lines until a written agreement governing such distribution is reached between the Chordoma Foundation and the creator's institution. So as not to delay the characterization process, the details of this agreement will be negotiated if and when a cell line is selected for inclusion in the panel, but before a prize(s) is awarded. Award of the prize is conditional upon the Chordoma Foundation being granted the right to use, store and distribute the cell line and associated data for all research and development purposes at its

discretion, under mutually agreeable terms such as, or similar to, those in the Uniform Biological Materials Transfer Agreement.

- Data generated in characterizing the cell line will be shared only with the creator and the Chordoma Foundation Cell Line Review Committee. This data will be kept confidential unless the creator waives this confidentiality. Upon inclusion in the Panel and acceptance of the prize, all data associated with the cell line provided to the Chordoma Foundation will be made public and distributed with the cell line.
- The Chordoma Foundation encourages creators to publish results of the research leading to the development and characterization of the new cell line(s), preferably in a peer-reviewed open access journal. Therefore, at the request of the creator, the Chordoma Foundation will embargo specific data regarding the cell line for up to one year to give the creator an opportunity to publish on the creation and characterization of the cell line.
- Cell lines selected for inclusion in the Chordoma Foundation cell line panel will be stored and maintained on behalf of the Chordoma Foundation in the lab of Dr. Michael Kelley at Duke University in Durham, North Carolina. At the discretion of the Chordoma Foundation the distribution of the cell lines may be moved to another lab or to a contract research organization.
- Upon acceptance of the prize the Chordoma Foundation will be permitted to publicize the name of the institution and/or creator, and the amount of the prize.

TERMS AND CONDITIONS OF PRIZE

1. AWARDS PROCESS

The decision to include a cell line in the Panel and to award a \$5,000 prize to the cell line's creator will be made by the Chordoma Foundation Board of Directors based on the recommendation of the Chordoma Foundation Cell Line Review Committee, the availability of funding, and other pertinent factors. The Review Committee will consider the genetic and biological characteristics of the cell line, as well as accompanying data regarding the tumor from which the cell line was derived. Investigators will be notified in writing by the Chordoma Foundation whether or not cell line(s) are selected for inclusion in the Panel. Upon validation, selection for inclusion in the Panel and finalizing a mutually acceptable material transfer agreement with the creator of the cell line, the Chordoma Foundation will issue an award letter and payment form offering an unrestricted prize for scientific and educational application in the amount of \$5000 for each cell line accepted into the Panel.

2. ACCEPTANCE OF AWARD

A grantee indicates acceptance of an award and will become bound by the terms and conditions attached to the award notification letter by signing the award notification letter and depositing funds disbursed by the Chordoma Foundation. Each prize will be awarded on the terms and conditions outlined herein.

3. DISBURSEMENT POLICY

This prize is made to reward the creator of a chordoma cell line for contributing that cell line to the Chordoma Foundation Cell Line Panel. The prize is made as an unrestricted award to the creator's institution to be used at the sole discretion of the creator for scientific and educational application. Payment to the creator's institution will be made by check unless otherwise requested by an authorized institutional official. Checks will be mailed to the "Fiscal Officer" address indicated on the payment form.

4. LIABILITY

Upon acceptance of this award, the creator and the creator's institution will indemnify and hold harmless the Chordoma Foundation, its Board, officers, agents, advisors and constituents from any claim, judgment, award, damage, settlement, liability, negligence or malpractice arising from research or investigation activities related to this award.