



Grant Application for The Development and Characterization of Chordoma Model Systems

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 model systems is a major barrier for chordoma research and treatment development. To overcome this barrier the Chordoma Foundation seeks to create and distribute well-characterized model systems including cell lines, xenografts, and/or genetically engineered animal models of chordoma that faithfully represent the biology of human chordomas. Grants of up to \$25,000 each will be awarded for projects to create and/or characterize relevant models of chordoma.

Instructions

1. Email the following in Microsoft Word format to grants@ChordomaFoundation.org by 5:00 pm (US Eastern Time) **Friday, August 1, 2008**.
 - a. A one-page letter of intent
 - b. A biosketch for the Principal Investigator in standard NIH format
 - c. The names of up to three individuals whom you would recommend to review your grant application
2. Email the completed **APPLICATION FORM** to grants@ChordomaFoundation.org by 5:00 pm (US Eastern Time) on **Monday, September 15, 2008**. Only applications written in English will be considered.

In addition, a signed paper copy of the application, and all attachments must be mailed to the address below and **postmarked** no later than **Monday, September 15, 2008**.

Simone Sommer, MD, MPH
Chordoma Foundation
PO Box 4562
Greensboro, NC 27404-4562

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

Timeline

Letter of Intent deadline	August 1, 2008
Proposal deadline	September 15, 2008
Notifications sent by e-mail	November 14, 2008
Funding period begins	January 1, 2009

revised 07/10/08

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APPLICATION REQUIREMENTS

To be considered an application must contain the following

1. A one page **LETTER OF INTENT** including a brief description of the project's specific aims should be emailed as a Microsoft Word document to grants@ChordomaFoundation.org.
2. A **NIH FORMAT BIOSKETCH** for the Principal Investigator (PI). A sample can be found at: <http://grants.nih.gov/grants/funding/phs398/biosketchsample.doc>
3. The completed **GRANT APPLICATION FORM**:
 - A completed **information form** and **signature page**
 - An **abstract** of one page or less summarizing the goals of the project and the approach that will be used to establish and characterize models of chordoma.
 - Background and rationale** for the specific characterization you will perform.
 - A description of any **preliminary work** that you have performed to establish and/or characterize chordoma models. If applicable, include a description of your **experience** establishing models from other tumor types.
 - A 2-3 page **description of the project aims** including an explanation of the methods you will use to establish and characterize chordoma models.
 - A description of the **resources and facilities** available for the project. At a minimum, this description should include:
 - Total number of chordoma surgeries performed at your institution or a nearby partner institution per year
 - Laboratory space and equipment available for the project
 - Core facilities or technologies available for the project
 - Any relevant expertise or experience of members of your research group or collaborators
 - A list of **project personnel**, including name, position, institution and role on project. Please include the percentage effort that each person will devote to the project.
 - A list of **investigators** who you will collaborate with on this project, including name, title, institution and nature of collaboration.
 - A list of up to three individuals whom you think would be appropriate **outside reviewers** of your grant proposal. These individuals must not be from your same institution or be current collaborators. For each individual, please provide name, title, institution, address, telephone number, and email address
 - A list of the sources and amounts of any **additional or related funding** allocated for this project.
 - A completed **budget form** for the proposed project. Maximum funding request is \$25,000.
 - A brief **narrative** justifying the expenses listed in the budget form. Neither the salary of the PI nor indirect costs may be included in the budget.

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ATTACHMENTS

1. If applicable, please provide a copy of the IRB-approved informed consent form used to collect tissue and/or related health information from patients at your institution for this project, AND proof of current, or pending approval (in the form of the application), for this study by an Institutional Review Board (IRB). The informed consent form must allow for your and any third parties' use, distribution, and storage of the patient's tissue and tissue derivatives (including model systems) for all research and development purposes.

Note: funding for the project, if the grant is approved, will not be released by the Chordoma Foundation until final IRB approval is documented, and the final approved consent form is received. This does not need to be in place at the time of application submission.

2. If you will receive tissue from another institution, please submit the following:
 - a. A memorandum of understanding from an authorized official at the other institution indicating a commitment to provide fresh tissue to your laboratory.
 - b. If available at time of submission, provide a copy of the informed consent form used by the other institution to collect tissue from patients for the purpose of this project AND proof of current or pending approval for this study by an Institutional Review Board (IRB).

Note: funding for the project, if the grant is approved, will not be released by the Chordoma Foundation until final IRB approval from all collaborating institutions is documented, and the final approved consent form(s) is received. The informed consent form should meet the requirements stated in Item 1 above.

3. If applicable, please provide proof of current or pending approval by your institution's Animal Use and Protection Committee (or similar oversight group).

Note: funding for the project, if the grant is approved, will not be released by the Chordoma Foundation until final Animal Use and Protection Committee approval is documented.

4. A statement from an authorized institutional official that you may make available any model systems and related materials developed with funds from this grant to the Chordoma Foundation and any third parties for research and development purposes. The statement should identify and explain the nature of any limitations or restrictions on the use or distribution of any model systems so developed, including any third party rights in data, materials, or inventions generated using such systems.

Grant Guidelines and Expectations

1. The Chordoma Foundation will not make any claims to the ownership of the model systems or any related materials or inventions created by the grantee institution, however access to all model systems and related materials or inventions created using funds from this grant must be made available to the Chordoma Foundation on a reasonable basis, and the Foundation will have the right to use, store and distribute (including without limitation through third party tissue repositories) the models and materials for all research and development purposes at the Chordoma Foundation's discretion. It is expected that access to the model systems and materials will be made available at the grantee institution's expense of providing such access.
2. A portion of every tumor used to establish a cell line or xenograft must be frozen to serve as reference genomic material for any model(s) that may be derived from it. To validate that cell

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lines or xenografts faithfully represent the tumor from which they were derived, the Chordoma Foundation may request that a portion of this frozen tissue be shipped on dry ice to a reference lab designated by the Chordoma Foundation. The tissue may be used in connection with any of the activities described in item 1 above.

3. Any genome-wide expression analysis proposed in this application should be performed using Affymetrix U133 series Gene Chips, unless a request to use another platform is approved in advance by the Chordoma Foundation. Because genomic data is so vital to research in many labs, any gene expression data generated must be deposited in a public database as soon as possible, and no later than one year after the termination of the grant period, regardless of whether that data has been published. Requests for extensions may be granted on a case by case basis.
4. The Chordoma Foundation values and encourages collaboration with other investigators. Therefore grant recipients are expected to collaborate with one another by sharing information, observations, and techniques related to the establishment and characterization of the model systems.

Terms and Conditions

1. REVIEW PROCESS

Each grant application will be reviewed by members of the Chordoma Foundation Grants Review Committee who have not also submitted applications for this grant, and who do not have any other known conflict of interest. The applicant should provide the Chordoma Foundation with a list of three additional individuals who would be appropriate outside reviewers. The Chordoma Foundation Board of Directors awards grant funds based upon the recommendations and comments of the grant reviewers, the availability of funds, and other pertinent factors. After the review and evaluation process is completed, the Chordoma Foundation will notify all applicants of the outcome of their request.

2. ACCEPTANCE OF AWARD

A grantee indicates acceptance of an award and will become bound by the terms and conditions attached to the grant notification letter by depositing funds disbursed by the Chordoma Foundation. Each grant will be awarded on the terms and conditions outlined herein. If a grantee cannot accept the award, including the legal obligation to perform in accordance with its provisions, the Chordoma Foundation must be notified immediately, and any funds already disbursed must be returned to the Chordoma Foundation in full within thirty (30) days of notification.

3. DISBURSEMENT POLICY AND REPORTING REQUIREMENTS

- a. This grant is made for a period of one year. Two-thirds of the total grant amount will be disbursed at the beginning of the funding period, and the remaining one-third of the total grant amount will be disbursed upon demonstration of satisfactory progress six (6) months after the beginning of the funding period. Payment to the grantee 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 first page of the Grants Application Form
- b. A progress report must be emailed to grants@ChordomaFoundation.org within six (6) months of the beginning of the funding period. This report should include the following information:
 - i. A summary of project expenditures

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- ii. A narrative of the work performed and progress made in establishing and characterizing model systems including any results or findings.
 - iii. Number of tumors put into culture
 - iv. Problems/issues encountered and actions taken in response
 - v. If applicable, a description of collaborations with other investigators on this project
 - vi. A list of manuscripts submitted and/or published based upon results of this project
 - vii. A description of any intellectual property that was generated using Chordoma Foundation research support.
 - viii. Plans for the future. Clearly indicate any changes from the original application in design, methods and/or procedures and the reasons for these changes.
- c. A final comprehensive progress report must be emailed to grants@ChordomaFoundation.org within thirty (30) days of the termination of the grant. This report must include all items listed in 3.b. above.
 - d. A final itemized report of expenditures must be submitted by the grantee institution within sixty (60) days of the termination of the grant, together with the refund of any unexpended balance. Unexpended funds from an existing grant may only be carried forward to a renewal or an extended grant term with the written permission of the Chordoma Foundation.
 - e. The Chordoma Foundation reserves the right to request, at its discretion, additional information related to the progress of the project or the project budget, or to schedule a site review of the project.

4. EXPENDITURE RESPONSIBILITY

- a. The institution and Principal Investigator(s) will use all grant funds solely as described in the written description of the project that is approved by the Chordoma Foundation and the applicable IRB(s). Chordoma Foundation grant funds may not be used to pay for the salary of the PI nor for indirect costs. Requests to modify the approved project description must be submitted in writing to the Chordoma Foundation at least sixty (60) days prior to the date such changes are proposed to become effective.
- b. The Chordoma Foundation is not responsible for the over-expenditure of grant funds, or for expenditures made before the starting date of a grant.
- c. The Chordoma Foundation must be notified immediately if there is to be any change of either the Principal Investigator or the institution with which he or she is associated. Furthermore, if the Principal Investigator is to be absent from the grantee institution for a time of more than thirty (30) days, then the Chordoma Foundation must be notified in writing. Grants may be transferred from one Principal Investigator to another at the grantee institution upon prior written approval of the Chordoma Foundation. When transfer from one Principal Investigator to another is desired, the original Principal Investigator must submit a request in writing that includes: 1) the reason for the requested change; 2) the justification of the ability of the proposed new investigator to complete the project; and 3) the NIH biosketch of the new Principal Investigator. The Foundation will notify the Principal Investigator in writing of its decision.

5. CANCELATION POLICY

A grant may be cancelled by either party upon thirty (30) days written notice. In the event of cancellation by the Chordoma Foundation, the grantee institution will be reimbursed from any remaining unexpended grant funds for all costs incurred and all non-cancelable commitments in the approved project. In the event of cancellation by the grantee institution, any unexpended or un-obligated funds advanced by the Chordoma Foundation shall be refunded immediately.

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6. AVAILABILITY AND ACKNOWLEDGEMENT OF RESEARCH RESULTS

- a. The Chordoma Foundation expects any results and accomplishments from research it funds to be made public, preferably in a peer-reviewed journal article. In addition, the Foundation requests that results of funded research projects be presented at Chordoma Foundation Research Workshops.
- b. The Chordoma Foundation must be cited as a source of funds in any abstracts, publications and presentations resulting from research funded in whole or in part by the Foundation, and the Foundation must be sent a copy of the published material or paper including presentations.
- c. Some information about research grants awarded by the Chordoma Foundation will be made available to the public. This information may include the title of the project, the name of the Principal Investigator, the grantee institution, the amount of the grant award, and the abstract, or edited abstract, provided as part of the grant application. All other parts of the application and progress reports are considered confidential unless the principal investigator waives this confidentiality.

7. POLICY REGARDING INTELLECTUAL PROPERTY AND PATENTS

- a. The Chordoma Foundation must be notified in reasonable detail in writing by an authorized institutional official of all inventions, discoveries and improvements (collectively "Intellectual Property" or "IP"), including specifically all domestic and foreign patent applications, that may be derived from Chordoma Foundation research support within sixty (60) days of their initial creation.
- b. Any Intellectual Property or tangible property generated using Chordoma Foundation research support will remain the property of the grantee institution. However, 10% of any commercial benefit (including without limitation the value of any licensee equity) obtained by the grantee institution from any grant of rights to any third party with respect to such Intellectual Property or tangible property must be returned to the Chordoma Foundation.
- c. If the grantee institution does not take reasonably diligent steps in accordance with its standard policies and procedures to protect and/or commercially license or develop resulting IP and/or tangible property derived from Chordoma Foundation research support within ninety (90) days of its development and thereafter, then the Chordoma Foundation may elect to take the lead in such matters on the grantee institution's behalf, including without limitation by filing and prosecuting patent applications and negotiating license agreements (subject to the grantee institution's approval, not to be unreasonably withheld) with third parties with respect thereto. If the Chordoma Foundation takes the lead in such activities, any commercial benefit obtained by the grantee institution from any grant of rights to any third party with respect to such Intellectual Property or tangible property will first be used to reimburse any expenses incurred by the Chordoma Foundation in performing such activities, and thereafter the portion of commercial benefit to which the Chordoma Foundation is entitled with respect to such IP or tangible property will be increased to 50%.

8. LIABILITY

Upon acceptance of this award, the Principal Investigator and the grantee 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 grant.