



# Request for Proposals

Towards Better Treatment for Chordoma Using  
Comprehensive Multi-omics Analyses

*New Program Announcement*

2020

**Purpose:**

The Chordoma Foundation is offering this funding opportunity to enable investigators to exploit the wide array of state-of-the-art multi-omics analyses to better define the biology of chordoma and identify causes of progression and metastasis. The ultimate goal is to generate new insights that can assist clinicians in treatment decisions for patients and help identify new targets and therapies to test in the clinic.

**Background:**

In the past decade, significant progress has been made in characterizing the genomic, transcriptomic and epigenomic landscape of chordoma, leading to the identification of multiple putative therapeutic targets and prognostic biomarkers. Yet, knowledge remains limited about the range of interacting molecular events that drive progression, metastasis and, ultimately, the lethality of some chordomas. Moreover, observed differences in clinical behavior and patient outcomes between tumors of the skull base, spine and sacrum beg the question of whether there are clinically relevant biological differences, different drivers of progression, or different vulnerabilities among tumors of different anatomic locations. Filling these knowledge gaps requires a comprehensive view of the 'omic landscape of chordoma. Thus, through this funding mechanism, the Chordoma Foundation seeks to support the integration of multiple layers of data on a significant cohort of chordoma tumors representing diverse clinical manifestations of the disease.

**Aims and scope of this award:**

This funding opportunity is to support research that will utilize integrated multi-omics analyses to address one or both of the following two aims:

1. Elucidating drivers of progression/metastasis and/or;
2. Defining clinically relevant biological differences between tumors of different anatomic locations

The types of multi-omics analyses could include but are not limited to datasets generated from interrogation of the genome, transcriptome, epigenome, proteome and phosphoproteome, metabolome, and immunome of chordoma tumors and the surrounding microenvironment. The scope of the work to achieve the aims of the RFP could include:

- deep analysis of multiple existing "omics" datasets on chordoma patient samples and/or;
- generation of new "omics" datasets on existing banked tumor samples and/or;
- combination of both approaches described above

**To increase sample number and expand the types of assays to be included in the "omics" analyses, multi-institutional collaborations are strongly encouraged.**

**Mechanism of support:**

The budget and timeline for the grant will be dependent on the scope of work proposed. For projects that involve integrated bioinformatic analysis of existing datasets, applicants may request up to \$100,000 over a period of up to 12-months. For projects involving data generation and subsequent analysis, applicants may request up to \$250,000 over a period of up to 18-months. Investigators who demonstrate significant progress during this initial funding period may be invited to apply for follow on funding. Indirect costs not to exceed 10% of direct costs can be included in the budget. No more than \$10,000 will be provided for equipment costs and only if clearly justified. As stated above, proposals involving meaningful collaboration among investigators with complementary capabilities are encouraged; awards can be split among investigators' institutions as needed.

In addition to grant funding, the Chordoma Foundation may be able to provide access to biospecimens through the Chordoma Foundation Biobank for projects that are invited to submit full applications. Further details will be provided upon approval of the project letter of intent.

**Eligibility and conditions:**

- Applications will be accepted from investigators at academic institutions, nonprofit research institutions and for-profit companies.
- At least one team member should be a scientist or clinician scientist with deep expertise in integrated analysis of multi-omic data sets and a strong publication track record in this area.
- All data generated in whole or in part through this funding mechanism must be deposited in a public repository at the time of publication or within six months of the end of the award period, whichever is sooner.

**Application information:**

Interested applicants should submit a **1 page letter of intent (LOI)** describing:

- The question(s) that will be addressed related to the aims of the RFP
- Datasets to be analyzed and/or analyses to be performed
- Statistical power of answering the question(s) based on number of samples analyzed
- Willingness to publicly share data at end of study

Email the following to [grants@chordoma.org](mailto:grants@chordoma.org) no later than **Thursday, September 30th**:

- One page letter of intent
- Biosketch of principal investigator and co-principal investigator(s)

All documents should be in Microsoft Word format. Invitations to submit a full application will be made within 14 days after the LOI deadline date. The application template will be sent to invitees at that time. Inquiries concerning the application and process should be

directed to Joan Levy, Director of Research, via email at: joan@chordoma.org.

## KEY DATES

**LOI due:** September 30, 2020

**Full application due:** November 20, 2020

**Award notification:** December 2020

## CRITERIA FOR CONCEPT SELECTION

Proposals will be reviewed by a committee with expertise in chordoma biology, multi-omics analyses, and bioinformatics. Criteria that will be used in scoring and prioritizing applications include but are not limited to:

- **Scientific Strength:** The proposal should employ novel analyses and innovative bioinformatic approaches to develop a multi-dimensional picture of chordoma biology and answer questions relevant to the aims of this RFP.
- **Feasibility:** The proposed methodology and analyses must be feasible to accomplish the specific objectives of the proposal. Sample sizes should be sufficient to generate statistically significant results. The timeline to achieve the specific aims must be realistic.
- **Investigator/Institution Appropriateness:** The Principal Investigator and any Co-Principal Investigators should have the appropriate expertise and evidence of productivity to lead the researchers that will be conducting the proposed research. Equipment and resources at the institution(s) should be sufficient to support the proposed research plan. The proposed approaches and workflows should be well-established in the hands of study personnel.
- **Efficiency:** Ideally, where possible, the proposed project makes use of shared resources, infrastructure or workflows to benefit from economies of scale. Leveraging other sources of funding or in-kind support is also desirable, but not required.