

## **21ST CENTURY SCIENCE INITIATIVE**

### ***Brain Cancer Research***

Despite some recent cause for optimism for advancing the clinical treatment of brain cancers, for many patients brain tumor remains a devastating diagnosis. Progress against this disease has been stymied by limited understandings of the molecular, metabolic, and physiological characteristics of human brain cancers across multiple temporal and spatial scales and by the failure of many preclinical models to predict patient responses.

Experimentally promising bio-molecular therapies often fail to achieve clinic efficacy because preclinical experimental models fail to mimic the real-world clinical needs of patients. Brain cancer survival statistics for the deadliest of tumors such as GBMs have minimally improved over the past two decades and the clinical armamentarium is, to a large extent, still dependent on surgery and radiation therapy – treatments known to leave survivors with devastating cognitive deficits.

All proposals submitted to the foundation must clearly link the experimental models and questions to the realities of human disease. Proposals primarily intending to characterize basic mechanisms of growth and development that may plausibly but are not yet known to be contributory to human brain cancer are not encouraged. Proposals testing molecules as possible treatment interventions should consider including tests designed to uncover unintended biological effects of such molecules that would disqualify future clinical usefulness. Research with in vitro or in vivo model systems must demonstrate that the model has predictive value for human tumors.

The Foundation is particularly interested in supporting novel research that will generate new knowledge leading to increased rates of survival and improve functional recovery for individuals with brain cancer. In prior years, the foundation has funded about 6 or fewer research applications. Keeping true to the Foundation's mission, we ask that you refrain from submitting proposals better suited to programs at NINDS or NCI.

Support awarded through the 21st Century Science Initiative is intended to encourage new ideas and approaches, early in their development, that are unlikely to be funded from traditional sources. Proposals from junior faculty and from individuals with strong neuroscience, genetics, mathematics, molecular pathology, and tumor immunology backgrounds, interested in pursuing novel research on brain cancer, are encouraged.

## **2012 RESEARCH AWARDS IN BRAIN CANCER**

### ***Overview***

21st Century Research Awards are designed to support research projects with a high probability of generating new knowledge and insights. Projects submitted for funding consideration should be at an early, even preliminary stage of development, and should be intended to break new ground or to revisit commonly-held assumptions. Projects submitted should be sufficiently cross-disciplinary or heterodox to have a strong likelihood of influencing the development of new ways of thinking about important problems.

21st Century Research Awards provide adequate, flexible funding over a sufficient time period to allow investigators to pursue and develop new directions to their research programs.

A maximum of \$450,000 total costs can be requested and the funds can be expended over a minimum of 3 years to a maximum of 6 years. **Please Note: Smaller amounts of money expended over shorter amounts of time may be requested to help investigators pursue pilot projects or test the feasibility of an experimental approach.**

The applicant can apply the grant funds towards any research-based expense, including travel, equipment, and supplies. Funds can be used to support collaborative research projects. A percentage of the funds can also be used to support small workshops organized by the applicant where the goal of the workshop is to gather expertise in support of the research objective.

Grantee institutions must agree to waive all indirect and administrative costs. The rationale for this JSMF policy [can be found here](#).

Representatives of the Foundation will not advise applicants on the scientific merits or how well proposed projects fit the goals of JSMF grant programs. We believe these decisions are best made by potential applicant institutions after careful review all JSMF web-posted materials. All projects must qualify for one of the 21st Century Science Initiative's program area (see below) awarding 21st Century Initiative Research Awards.

- Brain Cancer Research

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### ***Eligibility***

**Please note:** Applicants submitting proposals to the 2012 Research Awards [will not be eligible](#) to submit proposals to future JSMF Research Awards competitions until 2015.

The 21st Century Science Award supports research projects with a high probability of contributing new knowledge. Projects submitted for funding consideration should represent ideas early in their conception, intending to break new ground, or challenging commonly-held assumptions that upon examination are not sufficiently supported by data.

Researchers with current grant support from JSMF are not eligible to apply to the foundation for continued support of ongoing research. If a grantee's current funds have been fully expended and a final grant report has been received and approved by the foundation office and the proposed project represents a new research direction, the individual may initiate a new proposal following all posted guidelines. ***Please note: prior JSMF funding is considered as a discriminator in the review process.***

JSMF funds internationally. Applications must be sponsored by a nonprofit institution as defined by Section 501(c)(3) of the United States Internal Revenue Tax Code. Institutions outside the United States should read carefully the [additional information on tax requirements available here](#).

There are no restrictions on the number of submissions that may be sponsored by a particular institution. However, considering the small number of grants awarded each year we do ask that institutions limit sponsorships to proposals meeting both the letter and the spirit of the Foundation's application guidelines.

Graduate students and postdoctoral fellows are not eligible to serve as principal investigators for 21st Century Research Awards. Principal investigators must have completed academic training and hold a position compatible with the pursuit of independent research. At most institutions this requirement corresponds to individuals at the assistant professor level and above. When senior scientists serve as principal investigators the proposal must describe, in detail, how they (and not only their research assistants and post-doctoral fellows) will use the requested funds to pursue research building on but departing from ongoing work in their laboratories.

We must emphasize that this is an international program for a limited number of awards. It is anticipated that competition for the awards will be intense. An international advisory review panel composed of scientists and scholars in the relevant fields will evaluate all applications that meet the eligibility requirements.

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### ***Selection Criteria***

The Panel will apply the following criteria in reviewing applications:

- The clarity with which the question is posed and the experimental approach described.
- The match between the posed question and the methodology to be used.
- The originality and creativity of the applicant's research record.
- The degree to which the purposed research could substantially contribute to the current state of knowledge in the applicant's field of research and related fields of research.
- The principal investigator's commitment and ability, as demonstrated in the proposal narrative, to communicate clearly and effectively.

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### ***Application Guidelines***

A single PDF file containing all the required information detailed below must be directly uploaded to the JSMF server via on or before 15:59 PM CDT on Wednesday March 14, 2012. *Electronic submission as a PDF file is the only acceptable format.* Additional information on the upload process including the upload link can be found [here](#).

**It is the responsibility of the applicant institution to assure that proposals conform to the guidelines below. Please keep in mind that proposal guidelines are not arbitrary. Rather, guidelines are designed for your benefit. The intent of JSMF is to create a simple, fair, straightforward application process. Applications to JSMF that fail to meet both the spirit and the letter of the guidelines will be considered an inappropriate response to the posted request for applications and eliminated from funding consideration.**

- Do not include any documents other than those requested below. Documents not specifically requested in the guidelines (i.e. preprints, reprints, extra data) will be deleted. Cluttering applications with extraneous attachments will result in JSMF rejecting the entire proposal prior to scientific review.

- Application materials must be submitted in English.
- Word limits are set for your benefit. Please follow them carefully to avoid disqualification. Captions and references are not included in the word limit. Please refrain from using lengthy captions, footnotes, endnotes, etc as an end-run around the proposal word-limit.
- Representatives of the Foundation will not advise individuals on the scientific merits or fit of their projects with JSMF grant programs. Applicants should consult the program descriptions provided and determine for themselves whether their work is appropriate to the RFP.
- Before emailing the Foundation with questions, please be sure that you have thoroughly read all the information on the RFP-related webpages. *This may require scrolling, as important information may not all appear in a single screen.* Please do not email us for clarification about the finer details of the application (i.e. word limits, font size, margins, format of short-form CV). Follow the guidelines and use your best judgment.
- Proposals can name only one individual as the Researcher for application purposes. A co-Researcher or collaborators may be designated in the application but such individuals will not be considered as an official applicant for Foundation purposes. Of course, multiple researchers may be associated with the research and supported by the grant and they should be identified as appropriate (see below).

**Proposals must contain in the order listed:**

\_\_\_\_\_ 1. A completed JSMF cover page (download here: [Word](#), [RTF](#), or [PDF](#)). This should be the first page of your proposal file.

\_\_\_\_\_ 2.) An essay (1500 word maximum) describing the scientific substance and significance of the applicant's research in language suitable for a general, science-interested audience. PLEASE NOTE: Due to the diversity of subject matter expertise on JSMF review panels, these essays are carefully read by the reviewers and are an important component of the application. There is no need to duplicate information contained in the essay in the research plan (#3 below). The Foundation intends to post essays from funded projects on its web site.

\_\_\_\_\_ 3.) A description of the applicant's research plan (2500 word maximum). The applicant should describe the overall objectives of the research and the various ways the applicant intends to pursue those objectives. NOTE: The research should be described in sufficient detail to allow the Foundation and its subject matter expert reviewers to make judgments about the originality, importance, and feasibility of the applicant's proposed research project.

- The narrative should explicitly describe the research question, why this question is important, how the applicant plans to go about answering it.
- Please use your best judgment regarding the inclusion of charts, graphs, and other images. These should be kept to the absolute minimum needed to effectively support your proposal.

\_\_\_\_\_ 4.) A brief budget (table form) and budget justification (1000 words maximum) explaining how the requested funds will be expended. **A budget justification is not a narrative translation of the budget table, rather, it explains why the funds are being requested and how they are to be used to support the proposed project.** The budget table must provide annual and total expenditures summarized for general categories. Suggested budget table formats can be [found here](#).

\_\_\_\_\_ 5.) Short-form curriculum vitae for all Researchers. ([We recommend following the NIH biosketch format. Examples can be found on the NIH website.](#)) Applications **must** include a list of ALL current and pending research funding. Additionally, the budget narrative (#4 above) must include short biographies for any individual for whom salaries are being requested.

\_\_\_\_\_ 6.) JSMF takes the responsibility of having grant funds used for the support of graduate students and postdoctoral trainees seriously. Any proposal requesting stipend support for trainees to provide a complete listing of current and recent trainees mentored by the principal investigator(s). For current trainees please provide the names of trainees, the immediate prior institutional affiliation of the trainee, and one sentence describing his or her research project. For past trainees please provide names and information about their current position. This information will be an important component of the overall review of the proposal. Proposals failing to include this information when required will not be considered eligible for funding. [[See an example](#)]

\_\_\_\_\_ 7.) A letter from the appropriate administrative official at the applicant's qualified institution stating that the institution, as the official grantee, will administer the award, if made, and agree to waive all administrative charges and indirect costs.

**Important Note:** If your proposal is selected for funding from James S. McDonnell Foundation, you will need to submit documentation that your qualified institution is a nonprofit institution in accordance with Section 501(c) 3 of the United States Internal Revenue Tax Code or its equivalent for non-US institutions, an Affidavit of Grantee Form. Please check to see whether or not your qualified institution's documentation of tax status is already on file with JSMF ([check the list](#)). If it is, your sponsoring institution will only need to submit a letter verifying that this documentation has not changed. If it is not, you may wish to begin the process of obtaining such documentation. This is especially true if your qualified institution is not in the United States since it can be especially time-consuming for foreign institutions to gather, prepare and translate the appropriate documentation. Any delays in providing this documentation after a grant has been approved will delay the start date of the grant accordingly.

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### ***Decisions & Notifications***

Proposals will be reviewed in-house by JSMF officers and evaluated by members of each program's advisory review panel. Opinions of other expert reviewers may also be solicited by the Foundation.

Proposals will be discussed during a meeting of the advisory panel during June 2012.

Final funding decisions will be announced sometime during Summer 2012 after the JSMF Board of Directors meets and considers the advisory panel's recommendations. Notification emails will be sent to the researcher and one administrative contact that is provided during the [proposal submission process](#).

JSMF is frequently asked what percentage of proposals is typically funded. In light of the fact that the Foundation is looking to support unusual opportunities to advance the current state of knowledge only a small percentage of the applications submitted are funded every year. In general, only a small number of the proposals submitted meet both the letter and the spirit of the RFP.

The Foundation recognizes that proposal preparation requires an investment of time and effort. The guidelines we have set forth are in place to a.) stream-line the process on both the application and the review sides and – more importantly – b.) ensure an even playing field for all applicants. We have tried to keep the RFP specific enough to generate fair and competitive proposals, but general enough not to limit or bias the nature and/or content of the projects proposed.

Best of luck!

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### ***Funding Policies***

Interested in applying for a JSMF grant? Review and understand these policies before applying for a grant.

- [Indirect Costs Policy](#)
- ["Once-Every-Three-Years" Eligibility Policy](#)
- [Tuition Policy](#)
- [Documentation of Tax Status / Affidavit of Grantee](#)
  - [Tax Exemption List](#)

Section last updated: 2011-10-31

### ***Budget Preparation***

Include a budget justification explaining why the requested funds are needed to carry out the proposed research. If the funds requested will not cover the full cost of the proposed research, please indicate all other funding sources. Prior to awarding grants, the Foundation reserves the right to renegotiate budgets. Foundation policy does not allow for indirect cost requests.

Before preparing a budget for project submission, Researchers should consult with their institutional financial officer to review their institution's grant policy.

#### **Non-US institutions should provide budget amounts in both local and U.S. currency.**

The budget should have clearly-marked columns for funds needed in each year of the proposed project. We also ask that you provide totals for the entire project. Total each category such as salaries, equipment, materials, supplies, travel and expenses. For your information, we have provided a sample budget ([PDF](#) | [Excel](#)); it is provided for informational purposes only, and is not all-inclusive of allowable budget line items.

After determining the budget amounts for the duration of the grant, include the project start date. The grant term "from (mm/yy)" and "to (mm/yy)" with total amounts needed each grant year should be clearly identified. When determining start dates for a project, allow 4-6 months after the proposal receipt deadline for proposal review and administrative processing if funded.

Note: Once funding is approved, the grantee institution's financial office serves as fiduciary agent overseeing all expenditures associated with grant budgets.

JSMF does not negotiate subcontracting of grant funds. JSMF does not review or approve subcontracting agreements, changes to, or the transfer of, subcontracts. The Foundation does, however, give the grantee institution the authority to write subcontracts in order to make available the necessary funds for the Researcher and co-Researchers to complete the approved project. If a letter is needed stating the Foundation's position regarding subcontracts, submit requests via email to the Grants Manager.

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### ***Allowable Budget Items***

Proposal budgets should be consistent with the Foundation's objective of supporting the direct costs of carrying out the proposed research project only. Requested funds should be used for research expenses above and beyond the operating costs of colleges, universities, and research institutes.

#### **The Foundation considers allowable research expenses to include:**

- The cost of purchasing equipment and supplies required to do the proposed research
- The cost of time on shared instruments such as MR spectrometers
- Reimbursement for human subjects
- Travel funds when travel is required to carry out the proposed research.
- Salaries for technical support staff.
- Research animal purchasing, housing, and food per diem costs.

#### **Requests for the following items must be strongly justified:**

- Stipends or salaries for graduate student research assistants and postdoctoral trainees/fellows.  
**NOTE:** The training record of principal investigators will be reviewed.
- Salary for non-tenured faculty
- Salary for faculty whose primary appointments are school of medicine departments
- Salary for research staff/faculty with soft money positions
- Requests for TBA technical and support staff

***In any and all cases Faculty salary requests can not exceed 30% of the institutional base salary.***

#### **The following expenses should not be requested:**

- [Indirect costs](#)
- Indirect costs listed as direct costs (telephone, photocopying, etc.)

- Salary for tenured faculty (see exceptions above)
- Summer salary for faculty
- [Tuition or 'continuing student' fees for graduate students](#)
- Travel costs for attendance at professional meetings and associated costs or annual membership fees for scientific associations or publication subscriptions
- Miscellaneous costs 'padding' the budget
- Salary for TBA postdoctoral fellows (if you are requesting funding for postdoctoral fellows, the individuals filling such positions must be identified at the time the proposal is submitted -- no money will be approved for open postdoctoral spots to be filled by as-yet-unnamed individuals.)

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## ***Personnel & Equipment***

### **Personnel**

1. Please provide requested salaries for personnel and in a separate line item please account for all institutional requirements for fringe benefits such as health insurance, unemployment, etc. and include percentage increases chargeable to the grant by year, if applicable.
2. Be certain to account for the institution's 'cost of living' salary adjustments in the justification narrative when applicable.
3. JSMF neither has restrictions on the number of applications requesting support nor the number of awards that can be given to an institution for collaborative projects, as long as JSMF program guidelines are followed. Your budget must clearly communicate the collaborative effort to include such items as salaries, equipment and supplies for all participating scientists at each institution. If you are including the payment of salaries as part of the budget, please note that salaries requested must be based upon the grantee institution's pay scale.

### **Equipment**

The Foundation realizes that pricing equipment items for future years can be difficult to project--provide a best estimate. Equipment purchased by an institution with JSMF funds for the Researcher to conduct the research, is the property of the grantee institution. Investigators planning to transfer to another institution or intending to take equipment off-site, must request approval from the appropriate institutional office.

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## ***Sample Budgets***

The requested budget formats include the items necessary to conduct the research. You must submit a brief justification for each item presented in your budget. Your budget may vary from the sample provided here.

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## ***Frequently Asked Questions***

1. [Do you fund internationally?](#)
2. [I have an idea for a research award. Is my idea something you would fund?](#)
3. [I work for a state university in the United States. Are researchers at my institution eligible to apply for a grant since we do not have a 501\(c\)\(3\) status?](#)
4. [I'm preparing a research award. What date should I use as the "start date"?](#)
5. [In the past, I remember that JSMF made grant payments in stock. Is this still the case?](#)
6. [Is there an outline or example of a completed proposal file that I can see?](#)
7. [There are samples of the 1500 word essays from \[program area\] posted on your website. Do you have any examples of 2500 word research plans from funded projects that I could review?](#)
8. [Are references and image captions included in the word limit?](#)
9. [Do you accept late proposals?](#)
10. [Is there a limit on the number of applications that can be submitted from a single institution?](#)

### **1. Do you fund internationally?**

Yes. We have no geographic restrictions. International applications are encouraged.

### **2. I have an idea for a research award. Is my idea something you would fund?**

We usually don't advise potential applicants on the appropriateness of their research ideas. We prefer that you read over the program description, browse through past grants we have given in that area, and then decide whether or not to apply.

**3. I work for a state university in the United States. Are researchers at my institution eligible to apply for a grant since we do not have a 501(c)(3) status?**

Non-profit, state and local organizations are tax-exempt by the US government with a status known as a "government instrumentality" or state exempt (public schools and universities, museums, libraries), which carries the same status as those groups holding the 501(c)(3) tax determination letters. This means your institution is eligible to receive JSMF grants. Your development office should have a copy of the government instrumentality letter or other supporting document from the IRS.

**4. I'm preparing a research award. What date should I use as the "start date"?**

August 1 *or later*.

**5. In the past, I remember that JSMF made grant payments in stock. Is this still the case?**

JSMF no longer makes grant payments in stock. Future grant payments will be made by check in U.S. dollars.

**6. Is there an outline or example of a completed proposal file that I can see?**

No.

**7. There are samples of the 1500 word essays from [program area] posted on your website. Do you have any examples of 2500 word research plans from funded projects that I could review?**

No.

**8. Are references and image captions included in the word limit?**

No.

**9. Do you accept late proposals?**

No. We recommend you submit your proposal 24 hours in advance to avoid any unexpected problems. No extensions will be granted. The deadline is Wednesday, March 14, 2012, at 15:59 CT.

**10. Is there a limit on the number of applications that can be submitted from a single institution?**

No.

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End of Guidelines