

21ST CENTURY SCIENCE INITIATIVE

Studying Complex Systems

The Complex Systems program supports scholarship and research directed toward the development of theoretical and mathematical tools that can be applied to the study of complex, adaptive, nonlinear systems. It is anticipated that research funded in this program will address issues in fields such as biology, biodiversity, climate, demography, epidemiology, technological change, economic development, governance, or computation. **JSMF supports research in the brain sciences through its topical program Understanding Human Cognition. The Foundation recommends that researchers in the neurosciences not submit proposals to the Complex Systems RFA. Typically, such proposals are unsuccessful. While the program's emphasis is on the development and application of the theory and tools used in the study of complex research questions and not on particular fields of research per se, JSMF is particularly interested in projects attempting to apply complex systems approaches to coherently articulated questions. Proposals intending to apply complex system tools and models to problems where such approaches are not yet considered usual or mainstream are appropriate to the RFA.**

2012 SCHOLAR AWARDS IN COMPLEX SYSTEMS SCIENCE

Overview

The JSMF Scholar Awards program derives from and is consistent with JSMF's commitment to supporting high quality research and scholarship leading to the generation of new knowledge and its responsible application. The JSMF Scholar Awards are designed to support research with a high probability of generating new knowledge and insights. Prior to applying prospective applicants should review the [description of complex systems science](#) used for the purposes of this call for proposals. In general, JSMF receives many more proposals than it can fund. Research projects outside the Foundation's described area of interest will not be funded.

Scholar Awards in Complex System Science (Scholar Awards-CS) provide largely unrestricted funding over a sufficient time period (\$450,000 paid in three (3) \$150,000 payments; funds expendable in no less than 3 and no more than 6 years) to allow investigators to pursue and develop new directions to their research programs. Scholars who do not fully expend the funds in 6 years will have the opportunity to request a 1 time no-cost extension of up to 2 years, but unless there are mitigating circumstances to justify prolonging the grant period the grant will be terminated and unexpended funds returned. It is JSMF's intent that Scholars expend the funds to pursue a research program within the 6 year time period. Scholar Awards-CS are one-time support. Once you have received a James S. McDonnell Scholar Award, you are not eligible to receive another Scholar Award.

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Eligibility

NOTE: JSMF is unlikely to award more than 8 Scholar Awards-CS each year.

Researchers with prior grant support from JSMF are not eligible for consideration for a Scholar Award-CS. For example, researchers that served as principal investigators or co-principal investigators on a JSMF Research Award in Complex Systems are not eligible to apply.

Applicants submitting to the 2012 Scholar Awards-CS will not be eligible to submit an application to future Scholar-CS competitions until 2015.

JSMF funds internationally. Applications must be sponsored by a qualifying 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 submitted by an institution. However, considering the small number of grants awarded each year, we do ask that institutions limit their submissions to applications meeting both the letter and the spirit of the Foundation's guidelines.

Eligible Scholar Award principal investigators must have completed all doctoral, postdoctoral, or fellowship training and hold an independent research position. James S. McDonnell Scholar Awards are not intended to serve primarily as career development awards -- the intent is to allow creative researchers to pursue important research. **It is anticipated that successful Scholar-Award applications will have principal investigators between 5 and 15 years post Ph.D.**

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

Applications will be reviewed by the James S. McDonnell Foundation and an [expert advisory panel](#). The awards will be based on the importance and originality the research program described in the application, the quality of the essay, the thoughtfulness of the expenditure plan, and the PI's qualifications to carry out the proposed research program.

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Application Guidelines

Applications must be submitted electronically via the JSMF website and are due on **Wednesday, March 14th, no later than 15:59 Central Time**. *Electronic submission as a single PDF file is the only acceptable format*. It is the responsibility of the qualified institution to assure that submitted applications conform to the guidelines below. Please keep in mind that the Scholar Award guidelines were not written arbitrarily. Rather, the guidelines are designed for the applicant's benefit. The intent of JSMF is to create a simple, fair, straightforward application process. Applications to the JSMF Scholar Awards 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. Cluttering applications with extraneous attachments will result in JSMF rejecting the entire application prior to 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 requested word-limits.
- Before emailing the Foundation with questions, please be sure that you have thoroughly read all the information on the Complex Systems Scholar Award-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 process (i.e. word limits, font size, margins, format of short-form CV). Follow the guidelines and use your best judgment.

The application consists of the following components arranged in the sequence provided below:

____1. A completed JSMF cover page (download: [Word](#), [RTE](#), or [PDF](#)). Insert it electronically as the first page of your application file.

____2.) An original, unpublished 3500 word essay prepared by the proposed principal investigator (PI). The first 500 words are devoted to an abstract (or an overview, or summary) suitable for posting on the JSMF website. We encourage the PI to explore the summaries of [prior complex systems awards](#). The remaining 3000 words are used to describe the importance of the research direction the Scholar Award is will support. PLEASE NOTE: Scholar Awards-CS are intended to support a program of research NOT a particular project. The essay should not resemble a research project proposal *per se*. Please use the essay to describe why, as PI, you are planning to pursue the lines of research you pursue, what you hope to learn, and what you plan to do in the coming years. You should also explain how your research program contributes to the continued development of complex systems science. Please describe explicitly why you consider your research program as complex systems science as defined in the context of this JSMF program. The essay should contain enough detail to allow the reviewers to make a principled decision about the merit of the proposed plan. Please remember that the essay will be read by the entire Scholar review panel; not all will be expert in your subject matter.

____3.) The application does not require a detailed budget; rather JSMF requests a brief narrative (no more than 750 words) explaining how the funds will be used. Please do not submit a detailed budget table as JSMF intends for Scholars to use funds flexibly as needed. The budget narrative should explicitly address how the funds will be used to advance the ideas described in the essay. Funds can be used for any JSMF allowable budget item. JSMF considers research expenses to include items listed at: <http://www.jsmf.org/admin/JSMF%20Grant%20Budget%20Table.pdf> .

____4.) Short-form curriculum vitae for the nominee. (We recommend following the NIH biosketch format. Examples can be found on the NIH website: <http://grants.nih.gov/grants/funding/phs398/biosketch.pdf>) All applicants must include a list of current research and pending funding requests.

____5.) A nominating letter from the CEO of the 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 <http://www.jsmf.org/apply/indirectcosts.htm>. If salary funding is being requested, the letter must also [document the institutional salary policy](#) and confirm the Scholar Award-CS applicant's available time and effort.

Important Note: If the submitted application is selected for funding from James S. McDonnell Foundation, the qualified institution will need to submit documentation that it 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 the qualified institution's documentation of tax status is already on file with JSMF (check the list: <http://www.jsmf.org/apply/tax-exemption-forms.htm>). If it is, the qualified institution will only need to submit a letter verifying that this documentation has not changed. If it is not, JSMF suggests the qualified institution consider beginning the process of obtaining such documentation. This is especially true if the 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

Applications will be reviewed in-house by JSMF officers and evaluated by members of the [Complex Systems advisory panel](#). Opinions of other expert reviewers may also be solicited by the Foundation.

Applications will be discussed during a meeting of the advisory panel at the end of May.

Final funding decisions will be announced in late June 2011 after the JSMF Board of Directors considers the advisory panel's recommendations.

The Foundation recognizes that application 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 application guidelines specific enough to generate fair and competitive applications, but general enough not to limit or bias the nature and/or content of the research 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](#)

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End of Guidelines