

## **Overview Information**

STEM4Girls is a non-profit corporation operating exclusively for charitable, educational, and scientific purposes within the meaning of Section 501 (c)(3) of the Internal Revenue Code of 1986, or the corresponding section of any future Federal tax code. The purpose of STEM4Girls is to encourage the pursuit of Science, Technology, Engineering, Math, and Agriculture, collectively termed STEM fields. STEM in Agriculture aims to bridge the gap between students and their available infrastructure they need to grow their ideas and have a positive global impact. By bringing enthusiastic students together to build a much-needed positive impact globally, STEM for agriculture is committed to solving these ongoing agriculture problems. STEM4Girls aims to instill a love for STEM in girls across the globe wherever women are vastly under-represented in STEM fields. STEM4Girls encourage girls to establish active collaboration among the peer groups improving their outlook towards STEM and to contribute to science. Additionally, STEM4Girls works to bring fun, educational workshops and camps available garner the interest of young minds in the hopes that it will help them throughout their lives. We place particular emphasis on the encouragement of girls and other underrepresented groups in STEM fields. To maximize our impact on current efforts, we may seek to collaborate with other nonprofit organizations which fall under the 501(c) (3) section of the internal revenue code and are operated exclusively for charitable, educational, and scientific purposes.

**Funding Opportunity Title:** STEM4 agriculture 20-21

## **Key Dates**

### **Posted Date**

December 1st , 2020

### **Open Date (Earliest Submission Date)**

February 1st , 2021

### **Application Due Date(s)**

March 1st ,2021

### **Scientific Review**

March 15th ,2021

### **Scientific Presentation**

March 20th, 21st 2021

### **Declaration of results**

March 31st , 2021

### **Earliest Start Date**

April 1st , 2021

### **Expiration Date**

August 31st, 2021

## **Scope**

STEM4Girls is honored and excited to announce a grant opportunity for students interested in a STEAM project; Science Technology, Engineering, Agriculture, and Math.

In order to promote art and science in Agriculture, STEM4Girls will be assisting students with up to 500 dollars to work on a unique STEAM project. These grants are available for K-PG students that identify as female, or K-PG groups with at least one student identifying as female.

Students may also submit a report at the end of the challenge period to get more funding for their future projects.

A potential grant of \$1000 will be given to the first-place entry and \$750 will be given to the second-place entry. Your last date for sending your proposal is 1st March 2021.

## **Submission guidelines**

**\*The Medium of application is English, and for the team whose mother tongue is not English are encouraged to consult a language experts interpreters or translators.**

**\*English language support will be provided upon request.**

**\*Scientific writing support will also be provided upon request.**

### **Eligibility criteria**

For K - PG students who identify as female or Group, with at least one student identifying as female, these grants are eligible.

### **Team leaders and team members**

Every team leader should have a registered stem4 account. And the participants' names should be listed under every team.

**Page Limitations:** Arial 11, line space 2. A4 size 1" margins. Maximum 12 pages (Excluding bibliography)

**Biographical Sketch (1-page max for each participant):** Describe the appropriate experience, training, and skill set that each team member possesses to conduct innovative new research.

**Itemized Budget (with justification) (1-page max):** What is the budget for? Is there any alternative available? What is the cheapest option? How does each item help the study?

**Research Plan (10 pages max):** The overall research plan needs to be presented within 10 page limit. Schematic diagrams, illustrations and flowcharts are highly encouraged where the artistic abilities can be appreciated. Figures and tables should be well defined with proper titles and descriptions. If and whenever required, the team can consult language experts for scientific writing; however, needs to be disclosed.

## **Following subtitles are requires**

- 1. Project Title**
- 2. Team members:** Name, address, school/organization, age
- 3. Abstract:** <250 words
- 4. Research Strategy:**

Address the following factors as they pertain to the research project proposed:

- a) **Background:** An overview of the scenario when led to the identification of a scientific question. Surveys, statistics,
- b) **Specific Aims:** Can have 2 or 3 specific aims to test your hypothesis. Each specific aim should be linked and be relevant to the overall project. Sub-aims can be included.
- c) **Significance:** What is the hypothesis or problem that is going to be addressed? Why and how is testing the hypothesis/solving the important problem? Explain how a successful outcome has the potential to transform the current understanding of agricultural science. How does the proposal revolutionize the present scenario under investigation?

- d) **Innovation**: State clearly and concisely what makes your project unique and innovative?
- e) **Preliminary data**: Include the preliminary data if available
- f) **Approach**: Provide enough information so that reviewers can thoroughly understand your proposal. If your methodology is standard, what is novel and innovative in your approach? How does your system differ from traditional methods? Experimental replicates and statistical analysis are highly encouraged.
- g) **Strengths and weakness**: Overall strength of the proposal with anticipated outcome needs to be highlighted. Point out the weakness of the study.
- h) **Alternate strategy**: If the approach fails, what will you do to overcome the risk?
- i) **Timeline**: Provide a timeline for the proposed research that does not overlap with the Study. A schematic representation will be appreciated.
- j) **Bibliography**: Add proper citations and references if available.

5. \* **Did scientific writing involve language experts?** Yes/no

## **Application Review Information**

The proposals will be examined and scored based on the following criteria.

1. **Overall Impact**: How the proposal is impacting the current system of agriculture? How is STEM involved in the study?
2. **Significance**: Does the project address a significant problem to advance the field? Are the aims of the project viable? How will successful completion of the purposes change the concepts, methods, technologies, and interventions that drive this field?
3. **Innovation**: Does the application seek novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? How

effective the proposal addresses the persisting issues? How innovative and effective is the proposal?

4. **Approach:** Are the strategy, methodology, and practices appropriate to accomplish the specific aims? What are the plans to address the weaknesses of the proposed project? How practical is the approach to address the scientific question/purpose?
5. **Environment:** Will the environment in which the work will be done contribute to success? Are the investigators collaborating with others?
6. **Additional Review Criteria:** Merit of the team members, Extracurricular skills, the overall outlook and design of the application based on schematic diagrams, illustrations, pictures, and flowcharts.
7. **Presentation:** Selected applications will be invited for ppt presentation for further screening

**\* Consulting language experts would support the reviewers to clearly understand the scientific content of the proposal, even though language is not a criteria for scoring.**