

# **USTAR SCIENCE AND TECHNOLOGY INITIATION GRANT**

## **(STIG) FY17 PROGRAM ANNOUNCEMENT**

### **UTAH SCIENCE TECHNOLOGY AND RESEARCH (USTAR) INITIATIVE**

USTAR is the State of Utah's technology catalyst, accelerating the growth of the innovation ecosystem from invention through product development. Guided by Utah's economic clusters, USTAR supports technology entrepreneurs and innovators through training, funding, incubator and accelerator programs; brokering technology transfer by connecting capital, management and industry; addressing market gaps in Utah's technology ecosystem and strengthening the state's research capacity.

### **SCIENCE AND TECHNOLOGY INITIATION GRANT**

The Science and Technology Initiation Grant (STIG) is intended to assist university researchers in developing preliminary data or proof of concept experimentation in order to compete for center grants and large multi-center or interdisciplinary federal grants or private funding. (i.e. foundation or nonprofit)

### **ELIGIBILITY**

- Individual researchers or research teams employed by a Utah non-profit college or university are eligible to apply for a STIG grant
- Applicants must identify the targeted funding source and the award type or solicitation
- STIG funds can be used to support proof of concept or specific research and development activities, such as performing initial data generation necessary to develop requisite data for applicant's technology to be eligible for the targeted funding
- Applicant's existing technology must be assessed to be between TRL 0-3
- Collaborations among researchers at different universities and/or among researchers in different disciplines, while not required will be given priority in the evaluation process
- Funding from USTAR must stay within Utah, though the team can include non-Utah entities
- Applicants must be developing research in an eligible industry sector
  - The USTAR Governing Authority will identify the Industry Sector(s) eligible to receive a STIG annually and will post on its website
  - Applicants must obtain a cost-sharing commitment from each university that will receive funding from a STIG grant
  - Matching funds may be provided via
    - In-kind contribution, which may include:
      - Cost of subject matter experts (SME)
      - Materials and equipment
      - work/research space
      - Travel and other expenses budgeted for the project
      - Or other contributions, as approved by USTAR

### **TARGETED INDUSTRY SECTORS**

USTAR is focused on the following targeted technology industry sectors for FY 17 (July 1 - June 30), though other industry technology segments can apply:

**Automation and Robotics** - Automation technology is the use of cutting-edge machinery in industrial applications to minimize human exertion. Robotics is the branch of automation that deals with the design, construction, operation and application of robots, as well as computer systems for their control, sensory feedback and information processing.

**Aerospace** - Aerospace is the branch of technology and industry concerned with aeronautics and astronautics. Areas for research include, but are not limited to, innovative approaches in aerodynamics, engineering of aircraft and spacecraft and the autonomous control of aircraft.

**Advanced Materials** - Advanced materials are all fibers, coatings, composites, etc. that are engineered to enhance the efficiency of a product and include new materials or improvements to existing materials. Advanced materials can be applied to the creation of carbon composites, 3D printing advances, climate control, solar technology, water purification, sports, military equipment and textiles.

**Big Data** - Big data is a term for data sets that are so large or complex that traditional data processing applications are inadequate. Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, querying and information privacy. Analysis of data sets can find new correlations to gather information on topics such as business trends, crime patterns, genome sequences, complex physical environments and more.

**Energy and Clean Technology** – Energy and Clean Technology encompasses products and processes that harness renewable and nonrenewable materials to dramatically reduce the use of natural resources, cut emissions and waste, and provide options for efficient energy storage and usage.

**Life Sciences** – Life science is defined as the study of living organisms from a cellular, molecular, or macroscopic perspective. Research in this area includes, but is not limited to, medical device development, biotechnology, pharmaceuticals, diagnostics, agriculture, genetics and healthcare IT.

## **APPLICATION PROCESS**

1. All applicants should complete the coversheet template, budget template and provide a quad chart and a white paper.
2. The white paper should be in 1.5 spacing and no less than 12-point font and no more than three pages. The white paper should include:
  - a. **Introduction:** describe the funding opportunity, the proposed research conducted for STIG funds, and why this data will improve success. Include size and duration of anticipated award.
  - b. **Describe technical approach:** identify the technical approach, the potential impact of conducting this research.
  - c. **Team:** briefly describe your team and the expertise that will be brought to bear.
  - d. **Funding:** Please describe how funding will be used in concert with matching funds. Identify the source of matching funds. If in-kind, describe how you monetize them.

All applications should be submitted in a single PDF document that includes the application form, quad chart, white paper and budget in that order. The file should be named: ResearcherName\_STIG.pdf and should be submitted to STIGinfo@utah.gov. Electronic submissions via email are preferred. A paper copy with an electronic copy on a memory stick may be submitted to the front desk of 60 E. South Temple, 3rd floor, Salt Lake City, UT 84103 during regular business hours. USTAR reserves the right to invite selected applicants to give a brief presentation to a review panel.

### **BUDGET**

USTAR receives an annual appropriation based on the state's fiscal year (FY) which is July 1 - June 30.

### **TIMELINE**

Proposals will be accepted on a rolling basis.

### **EVALUATION**

An independent panel of technical experts and state government staff will review USTAR STIG proposals. Individuals will be prescreened for conflict of interest. If proprietary information is included in your proposal, please mark it as such and include a completed GRAMA form with your application.

Proposals will be reviewed on the following criteria:

- Technical merit of proposal
- Appropriate technology readiness level (TRL 0-3)
- Whether proposal involves a collaboration between researchers at more than one university
- Whether the proposal involves a collaboration between researchers in more than one discipline
- Achievability and amount of the target grant
- Potential future economic benefit to the state
- Reasonableness of proposed milestones and timelines
- And any other factor indicative of applicant's ability to produce measurable and timely impacts on the state in areas related to the economic development performance

## **Scoring Rubric for USTAR Science and Technology Initiation Grants (STIG)**

### **Technical Merits (score 1-5)**

Technical merits (score 5)

- Milestones are specific and measurable, and align to technology goals
- Approach demonstrates a strong understanding and application of technology development best practices
- Technical approach has high likelihood of success, is well defined and considers alternative approaches if the original is not successful
- Timeframe does not exceed 18 months

#### Technical merits (score 3)

- Milestones are not specific or measurable, but align to technology goals
- Approach demonstrates basic understanding and application of technology development best practices
- Technical approach has a high likelihood of success and is well defined
- Timeframe for development is reasonable, does not exceed 18 months

#### Technical merits (score 1)

- Milestones are not specific or measurable and do not align to technology goals
- Approach does not illustrate understanding of technology development best practices
- Technical approach lacks detail or has low chance of success
- Development timeframe is not reasonable

### **Potential Economic Impact in Utah (score 1-5)**

#### Economic Impact in Utah (score 5)

- If successful, technology will be licensed or spun out in 1-3 years
- Technology has a high likelihood of retaining economic impact in Utah once it leaves the university
- Research jobs will be created in the state

#### Economic Impact in Utah (score 3)

- If successful, technology will be licensed or spun out in 4-8 years
- Technology has the possibility of retaining economic impact in Utah once it leaves the university
- There is potential to create research jobs in the state

#### Economic Impact in Utah (score 1)

- Technology will most likely not be licensed or spun out.
- Technology does not have the possibility of retaining economic impact in Utah.
- New research jobs will not be created in the state.

### **Technical Capability of Team (score 1-5) if collaborative, more points**

Technical capabilities/experience of the team that will enable market success (score 5)

- The team has the technical background and experience to meet the milestones identified in the proposal
- Team has experience working together with a history of success
- Team has diversity of technical expertise to overcome challenges

Technical capabilities/experience of the team that will enable market success (score 3)

- Team has sufficient technical credentials to meet the milestones identified in the proposal, but does not have prior experience with taking technology to market
- Team has minimal experience working together

Technical capabilities/experience of the team that will enable market success (score 1)

- The team does not have the adequate technical capabilities and experience for market success
- Team does not have experience working together as a team

### **Realism of costs (score 1-5) / funding availability**

Realism of the proposed costs and availability of funds (score 5)

- Proposed budget is both adequate and sufficient to complete the proposed work
- The personnel budgets provide adequate hours for the work to be completed
- Categories of expenses are reasonable and appropriate for the work

Realism of the proposed costs and availability of funds (score 3)

- Proposed budget may be insufficient or more than necessary to complete the work

Realism of the proposed costs and availability of funds (score 1)

- Not realistic in proposal of cost

### **AWARD**

USTAR will have the discretion to limit the amount of funding that may be awarded for each STIG based on available funds, scope of project and quality of proposal. USTAR reserves the right to award funding for any proposal in full or in part, to request additional information or to reject any or all applications based on the eligibility and evaluation criteria set forth in this announcement and according to the judgement and discretion of the governing authority. Upon award of a STIG, and prior to any disbursement of funds, university(ies) must enter into a

contract with USTAR governing the use of grant funding. Unless addressed in the terms and conditions of the contract between university(ies) and USTAR, the following provisions shall apply:

- Grant funding may not be used to provide a primary benefit to any state other than Utah
- For all other eligibility requirements, awardees must maintain eligibility status for the STIG program until the project is complete, all milestones have been met, final dispersant of funding has been made, and first year reporting has been completed.

Violations may result in forfeiture of grant funding and require repayment of all or a portion of the funding received as part of the program.

### **CONTACT INFORMATION**

Questions regarding the Science and Technology Initiation Grant must be submitted in writing via email. Inquiries made via phone or other method will not be accepted. Please direct all questions to [STIGinfo@utah.gov](mailto:STIGinfo@utah.gov).