



**UNIVERSITY TECHNOLOGY ACCELERATION GRANT  
(UTAG) FY18 FALL PROGRAM ANNOUNCEMENT**

***Note to prospective applicants: Please read this announcement carefully and thoroughly. Aspects of eligibility, targeted technology sectors and application process have changed, significantly. Applicants not adhering to the new process will have their proposals disqualified.***

**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 to 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.

**UNIVERSITY TECHNOLOGY ACCELERATION GRANT (UTAG)**

The purpose of USTAR's University Technology Acceleration Grant (UTAG) program is to support research and development of specific technologies that may create tangible economic value for Utah. USTAR's view of positive economic impact is a range of outcomes including innovative commercial products, research outcomes that cause a change in scientific, environmental and health awareness, as well as workforce development. This funding mechanism addresses an important gap in the state's economic cluster system; that is, the transition from hypothesis to early innovation concept. UTAG is a competitive research grant program, available to individual researchers or ad-hoc teams employed by nonprofit Utah-based colleges or universities, to advance the maturity of or de-risk technology conceived and developed in university labs. All projects funded through UTAG must have a line of sight for a commercialization model and product development path. Anticipated duration of projects will be no more than 18 months and grant money will be provided in the form of a reimbursement of expenses.

**ELIGIBILITY**

- Individual researchers or ad-hoc teams must be employees of a nonprofit Utah-based college or university to be eligible to apply for UTAG. UTAG is for researchers only; companies should apply to USTAR's TAP program.
- UTAG proposals must align with one of the targeted technology sectors identified by the USTAR governing authority (see below).
- UTAG funds are available for technology readiness levels (TRL) of 3-4.

- USTAR does not permit concurrent funding. Therefore, current awardees are eligible to apply only if the currently funded project is completed before the new funding starts.
- Funding is limited to research conducted in university-owned laboratories and facilities.

### **Targeted Technology Sectors**

USTAR is focused on the following targeted technology sectors for FY18 (July 1-June 30):

**Aerospace** - Aerospace is concerned with aeronautics and astronautics. Areas for research include, but are not limited to, innovative approaches in aerodynamics, advanced materials, engineering of aircraft and spacecraft and the autonomous control of aircraft. This includes both manned and unmanned systems.

**Automation and Robotics (including IoT and Smart City technologies)** - 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.

**Big Data and Cybersystems** - 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 relationships to gather information on topics such as business trends, crime patterns, genome sequences, complex physical environments and more.

Cybersystems is an overarching term related to computerized electrical and mechanical processes, as well as information generation and large capacity, rapid access storage, as well as data encryption, data security against breaches and data retrieval technologies. USTAR wishes to inspire creation and development of new strategies to prevent attacks on computer system networks and develop new encryption tools and computer hardware with a line of sight toward the next generation of computer hardware.

**Note: software application development and software subscription services are not considered in scope for this funding mechanism.**

**Energy and Clean Technology** – Energy and clean technology encompasses products and processes that harness renewable and nonrenewable advanced 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 advanced materials applicable to devices and drug delivery, medical device development, biotechnology, pharmaceuticals, diagnostics, agriculture, and genetics.

## **APPLICATION PROCESS**

**Stage 1. Mandatory Letter of Intent** (LOI) that includes the following:

1. USTAR will accept LOIs beginning November 9, 2017. All LOIs are due November 29, 2017 at 5:00 p.m. MST
2. Template ([download form](#))
  - a. Proposal title, contact names and contact information
  - b. Select the most appropriate technology sector
  - c. Brief description of technology, unmet need and project goals (300 words maximum)
  - d. TRL and justification (300 words maximum)
  - e. Estimated budget request
3. Submit the LOI by November 29, 2017 by 5:00 p.m. MST. Only those LOIs submitted on USTAR forms will be reviewed.
4. The applicant's LOI is reviewed and either accepted or declined by USTAR.
5. A notice of acceptance with a unique application number will be sent by email to the main company contact within 5 business days. The application number is used to access the online portal to submit application materials.
6. Applicants whose LOI is declined will also be notified by email with an explanation for the decision. LOIs with incomplete information are eligible for correction and resubmission prior to November 22.
7. Submit LOI and completed GRAMA form (for private institutions only) as a single PDF file with the title, Researchername\_Sector.pdf, to utaginfo@utah.gov.

**Stage 2. Complete Applications** will be accepted electronically starting December 7, 2017. Applicants with an approved LOI will receive via email the link to the application portal as well as an application number. It is suggested that applicants refer to the provided checklist on USTAR's website to ensure submission of a complete application (see details below). **Submitted documents must utilize the templates provided by USTAR (downloadable forms will be available through the application portal). All uploaded documents, except for the budget template (Excel may be used for the budget), must be in PDF form.**

Applications are due January 9th, 2018 **by 5:00 p.m. MST.**

1. **Quad Chart** – (downloadable template) Summarize key elements of the technology and commercial positioning according to the template.
2. **White Paper** (create document with each subsection) Do not exceed six pages, 1.5 spacing and no less than 12-point Arial font with one inch margins. (See specifics on graphs, tables and supplemental material below.) The white paper must be presented in NON-CONFIDENTIAL terms and **MUST** include the following sections:
  - a. **Introduction:** Describe the project technology background, problem being solved in terms of unmet need, innovation (disruptive-transformational-incremental improvement over state-of-the-art), rationale and overall approach based on current Technology Readiness Level (TRL), and expected TRL at project completion.
  - b. **Technical Strategy:** For each project milestone, describe the technical approach, the expected outcome(s) and specific deliverable(s). Include

limitations and alternative approaches. The timeline for completion must be stated. The entire project period must not exceed 18 months.

- c. **Commercialization and Economic Impact:** Describe the value proposition and addressable market of your technology. Characterize the potential economic impact on the economy of Utah if your technology is eventually marketed. This may include licensing revenue, job creation and product sales. The impact may also register on secondary markets, personnel benefits or other economic factors. Consider describing the anticipated time and challenges to bringing the technology to market. Indicate if resources, such as manufacturing or supplies, are able to be sourced within Utah. USTAR understands that the product concept and potential economic impact will be speculative at this early stage of development.
  - d. **Cited references** are public domain articles and scientific literature. These are not counted in the page limit.
  - e. **Graphs and Tables** are best embedded in the text and count toward the page limit. The font may be 10 pt or larger. **Supplemental material**, such as patents, presentations, etc., counts toward the page limit.
3. **Scope of Work** – (downloadable template) This is a breakdown of the project by milestone. Use the provided template to present your research plan according to milestones, their corresponding deliverable(s), budget and timeline, and illustrate milestone activity relative to the total grant period. An example is provided.
  4. **Budget and Budget Justification:** (downloadable templates)
    - a. Follow the budget template; there are 3 worksheets
    - b. Follow the instructions on the Budget Justification template.
    - c. Funding for travel is discouraged. If necessary for milestone completion, document the specific activity, the rationale and the portion of budget that will be used outside of Utah.
    - d. Requested equipment in the budget that exceeds \$5,000 requires justification.
    - e. In the justification, identify any private or government funds raised to date or pending. Include the source of funds and total amount raised. If USTAR funds have been used to date, please specify the date awarded and amount.
    - f. If anticipating additional funding to supplement the proposed project, describe the amount and source specifically.
  5. **Key Personnel Biosketch:** (downloadable template) Use one form for each key person not to exceed 5 pages per Biosketch.
    - a. Personal statement - background and experience that will lead to milestone accomplishment
    - b. Technical and/or management contribution to the project
  6. **Letters of Support** – (upload as a single PDF) USTAR accepts letters from those supporting the commercial potential of the technology, such as strategic partners, potential customers and others not directly affiliated with the research. No more than 3 letters are permitted, each limited to 2 pages.

**Stage 3.** USTAR reserves the right to invite selected applicants to give a brief presentation to a review panel. A presentation template will be provided in that instance.

## **STATE FISCAL YEAR**

The state's fiscal year is July 1 - June 30. Please use Fiscal Year designation (FY18, FY19 or FY20 as appropriate) in developing your budget and Scope of Work.

## **FUNDING SPECIFICATIONS**

USTAR receives an annual appropriation. Therefore, funding for UTAG is dependent on USTAR's appropriation. There is no minimum/maximum or suggested amount. Budgets and proposals should be driven by the cost associated with the milestones. USTAR does not pay tuition or overhead costs.

## **EVALUATION CRITERIA**

An independent panel of technical and commercialization experts in the corresponding USTAR technology sectors review UTAG proposals. The review process is managed from USTAR headquarters. Reviewers sign confidentiality disclosure agreements with USTAR and are prescreened to avoid conflicts of interest with applicants. USTAR strongly encourages, for your own protection, to not disclose confidential material in the application. An initial screen will be conducted by USTAR staff to ensure proposals meet submission requirements.

USTAR reserves the right to share application materials with administration at the applicable university to include, but not limited to, Office of Sponsored Projects, and technology transfer offices.

Peer review panels will review proposals based on the following criteria:

- Technical merit of project
- Impact and maturity of technology
- Potential for economic impact, as measured by:
  - Job creation
  - Product sales
  - Potential revenue due to expansion of current business or development of new businesses
  - Projected time to revenue or job creation
- Market need
- Technical competency of team
- Reasonableness of cost proposal (size and allocation of budget is appropriate for the work proposed and matching funds available)
- Reasonableness of proposed milestones and timelines
- 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 metrics used to evaluate USTAR activities.

## SCORING RUBRIC FOR UTAG

### Technology Evaluation – (from the White Paper) weighted 35%

#### Score 5 on Technical Merit

- Milestones are specific, measurable, actionable and aligned with overall project objective
- The aggregate of milestones drives the commercial goals
- Technical description is detailed and provides alternative strategies to address unexpected outcomes
- Research timeline is adequate relative to project goals

#### Score 3 on Technical Merit

- Milestones are vague yet remain aligned with overall project objective
- The aggregate of milestones somewhat drives the commercial goals
- Technical description is detailed and but misses alternative strategies
- Research timeline not realistic relative to project goals

#### Score 1 on Technical Merit

- Milestones are not specific, measurable, actionable or aligned with overall project objective
- The aggregate of milestones does not support commercial goals
- Technical description is not detailed and is missing alternative strategies
- Research timeline fails to support project goals

### Economic Impact Evaluation (from White Paper) 10%

#### Score 5 on Economic Impact

- 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
- Potential high-paying jobs will be created in the state

#### Score 3 on Economic Impact

- 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 jobs in the state

#### Score 1 on Economic Impact

- Technology will most likely not be licensed or spun out.
- Technology does not have the possibility of retaining economic impact in Utah.
- No jobs will be created in the state.

### Value Proposition of Technology (from White Paper) 20%

#### Score 5 on Value Proposition

- Researcher describes solution relative to a compelling unmet need
- Specific plan identified to exploit the technology
- Resources are available/attainable to commercialize or implement technology
- Technology has definitive advantage over status quo and demonstrated market potential
- Aligns to targeted technology sectors

#### Score 3 on Value Proposition

- Researcher solution to unmet need is fair
- Plan to exploit technology is adequate but not fully developed
- Technology has some advantage over status quo and may have market potential
- Good alignment with targeted technology sectors

#### Score 1 on Value Proposition

- Not convincing unmet need or solution
- No clear plan to exploit or make technology available
- Does not align to targeted technology sectors
- No advantage over status quo - won't move the needle and no addressable market

### Team Capabilities Evaluation – (from Budget Justification and Biosketches) weighted 20%

#### Score 5 on Team Capabilities

- 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

#### Score 3 on Team Capabilities

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

#### Score 1 on Team Capabilities

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

### Budget Evaluation (From Budget and Budget Justification) weighted 15%

#### Score 5 on Budget Evaluation

- 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

### Score 3 on Budget Evaluation

- Proposed funding is not justifiable; either insufficient to complete the work plan or is excessive
- FTEs are insufficient to be able to complete the work, or the FTE requirements are excessive
- Categories of expenses are inappropriate, too minimal or too excessive

### Score 1 on Budget Evaluation

- Not realistic in proposal of cost

## **AWARD**

USTAR will have the discretion to adjust the proposed budget of an award based on available funds, scope of project, and quality of proposals. 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 judgment and discretion of the USTAR Governing Authority. Upon award of a UTAG, and prior to any disbursement of funds, the sponsor university must enter into a contract with USTAR governing the use of grant funding. Grant funding will be provided in the form of a reimbursement, as specified by the UTAG contract. The following restrictions apply:

- Grant funding may not be used to provide a primary benefit to any state other than Utah
- For all other eligibility requirements, awardee must maintain eligibility status for the UTAG program until the project is complete, all milestones have been met, final disbursement of funding has been made, and first year reporting has been completed.
- Awarded proposals must have a milestone deliverable within the first 3 months of the project, and at least every 6 months after that.
- Only one UTAG award can be made per researcher or research team per fiscal year.
- Award must be spent in Utah. If work is being done out of the state, a justification must be provided.
- Funds may not be used to pay tuition.

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. Awardees will be contractually obligated to report to USTAR or affiliated auditors/contractors regarding statutorily defined economic development metrics as outlined in the UTAG rules for a minimum of five years following completion of award. Award recipients are contractually obligated to reference USTAR as a source of funding when speaking with the media, and/or publishing papers.

The schedule for disbursement of funds will be specified in the contract and will be contingent on successful completion of milestones and timely submission of invoices. Choosing to submit a UTAG application constitutes acceptance of the UTAG program requirements, including the UTAG Official Terms and Conditions and Utah Administrative Rule R856-3: USTAR University Technology Acceleration Grants.



**TIMELINE**

In the event of a change to administrative rule, applicants will be notified, and USTAR will post any changes to its website. USTAR anticipates announcing selected proposals approximately 60 days after the deadline for submissions. Award of contracts will take place approximately 30 days following announcement of selected proposals.

**CONTACT INFORMATION**

Questions regarding UTAG must be submitted in writing via email to [UTAGinfo@utah.gov](mailto:UTAGinfo@utah.gov). Responses will not be provided to questions made by any other means. All frequently asked questions and answers will be posted under UTAG questions on the USTAR website.