HOW TO APPLY: BME-IDEA Competition 2020 Guidelines

Please review these carefully prior to submitting.

Introduction

Since 2005, the BME-IDEA competition has recognized innovative biomedical engineering design with high commercial potential and social impact. The competition is open to both graduate and undergraduate students.

In this guide, you'll find all the information you need to know in order to create and submit a successful BME-IDEA competition entry. Please read it in its entirety to determine whether your team and technology are a fit for the program

About BME-IDEA

Competition winners will receive cash awards **($10,000 first place, $5,000 second place, and $2,500 third place)** as well as access to resources to be used for further development and commercialization of their products. The first place institution will get to display the BME-IDEA trophy in their winning department for the year.

Eligibility Requirements

To be considered for an award, applicants must:

- **Be a graduate or undergraduate student team** at a college or university.

- **Include at least one engineering student on the student team.** Teams are encouraged to incorporate members from diverse fields such as

business, law, medicine, dentistry, nursing, physical therapy, life sciences, physical sciences, or other related disciplines.

- **Focus on a new health-related technology that is invented by students and addresses a real clinical need.** Examples include but are not limited to: surgical tools and technologies, home health care devices, diagnostic, therapeutic, and preventative applications, rehabilitative and assistive technologies, healthcare information/digital health systems, or other innovations that will have a substantial impact on clinical care and patient

- **Demonstrate institutional support.** All teams are required to obtain verification of support from a Faculty Advisor (FA), and a Department Chair (DC). More details below.

There is a **limit of one entry per department and up to three entries per institution**, and it is up to each department to coordinate which entries are submitted. Inter-institutional collaborations are encouraged; we require a faculty advisor from each institution.

Competition Entry Process

Working with Your Institution Before You Enter

Required Verifications of Support

VentureWell requires certain institutional representatives verify their support of your competition entry by responding to an automated email request from our application system. We recommend you begin this step of notifying advisors of your intention to submit a competition entry at least **2-3 weeks** in advance of the deadline, and share your application with them prior to submission.

You will need verification of support from each of the following:

- **Faculty Advisor (FA)** . A Faculty Advisor must verify their support of this competition entry. The Faculty Advisor is the faculty/staff member taking primary responsibility for the project at the institution. Students cannot serve as Faculty Advisors. Please allow several days for the faculty advisor to respond.

  IMPORTANT: Should your competition entry be selected as a winner, cash prizes will be disbursed to your team's department to be allocated at the discretion of your Faculty Advisor.

- **Department Chair (DC)** . The Department Chair oversees the lead project department (usually the Faculty Advisor's department). This person may be Chair or your institution's equivalent (provost, etc.) Verification of support from this person demonstrates a level of institutional commitment to your project.

Intellectual Property Policies

You are advised to take appropriate steps to protect your team's intellectual property before submitting your application. You should read and understand your institution's intellectual property policy. If your institution does not have an intellectual property policy, we strongly suggest that your team works with the institution to establish an understanding regarding the resulting ownership of ideas funded through the BME-IDEA Competition.

VentureWell supports teams as they work toward the commercialization of their inventions and takes no financial or ownership interest in the projects funded by its grants. Ownership of discoveries or inventions resulting from activities financed by a VentureWell grant and/or competition prize funds will be governed by grantee institutions' intellectual property policies.

Submitting an entry to this competition for recognition of innovative design will necessitate public announcement of project summary, photos and/or videos for the 1st, 2nd and 3rd place winners, as well as any honorable mentions. Teams are advised to address intellectual property filings prior to submission and will be given one week from notification of award before the public announcement will be made.

How to Enter

All competition entries must be submitted online. Anyone on the team may serve as the applicant on a submission. All deadlines end at **11:59 pm Eastern Time** unless otherwise indicated. To start, you'll need to have a VentureWell account. Creating an account is quick and easy if you do not already have one. To access an existing account or to create a new one, click here. Then sign in, find the BME-IDEA Competition application and begin.

You may start, save, stop and return to your online application at anytime before submitting. We recommend that you start your proposal at least 2 weeks before the deadline to leave ample time to edit and proofread, gather letters of support and resumes, and verify institutional support.

BME-IDEA Competition Entry Components

Your application must have the following components combined together into a single PDF:

- **Title Page.** Use the following naming convention for this PDF: "TeamName_University_BME-IDEA" (be sure to use YOUR OWN information for the fields in orange)

- **Narrative**

- **Letter of Support**

- **Key Team Member Resumes**

- **3-Minute Video.** Provide a weblink to a 3-minute video describing your project and demonstrating you have achieved a working prototype.

- **Optional:**

  - **Additional Appendices** combined together in a single PDF (up to five total). Use the following naming convention for this PDF: "TeamName_University_BME-IDEAAppendices" (be sure to use YOUR OWN information for the fields in orange)
  - **Weblinks and/or Videos.** Up to 3 additional links can be included (websites, video links, articles, etc.).

Application Narrative (Required)

Your overall proposal narrative (excluding title page and references) may not exceed 10 pages in length using double-spaced, 12-point Times font and one-inch margins. Please include any images referenced in your narrative in the body of the narrative, NOT as appendices.

Title Page: Your title page should include the following information:

- Name of your team or venture

- Institution name

- List of team members. For each team member, include: name, degree sought, month and year of expected graduation, and email address

Executive summary (1 page). Outline the strategy for commercialization and opportunity statement. Address the following questions in this section:

- Problem: What is the problem you aim to solve?
- Solution: How will you solve it?
- Competition and differentiation: What are alternate methods of solving the problem or anticipated methods that could be in competition with you in the future? Why will people choose your solution over others?
- Technical Feasibility: Have you done it and can it be done?
- Regulatory and Reimbursement: What FDA approvals will be required? What Medicare/Medicaid strategy is needed?
- Sales and Marketing: What is the estimated size of the market (with rationale)? Who is the buyer/customer/user? Who will they buy it from? At what pricing?

Description of the problem to be solved (1 page). What is the problem you have solved? What are the clinical, market and/or industry needs that you intend to address?

Project objective statement (1page). How does your team intend to address the problem? How does your final design fit into the existing medical/healthcare system and solve the problem?

Competition & differentiation (½ page). What is currently being used to solve the problem and/or what are the anticipated alternate methods that could be in competition with you in the future? Why will people choose your solution over others?

Documentation of the final design (1 page). Be sure to include applicable standards and a risk analysis.

Prototype of the final design (1 page). Paste graphical representations and photographs in the document and provide a link to a video. If the current team was not involved from the beginning, specify what work your team has done vs. what progress has been made by others (other students, or others) prior to this current team's involvement.

Proof that the design is functional and will solve the problem (1 page). Include test data, market research or pre-clinical/clinical trials.

Results of a patent search and/or search for prior art, assessment and patentability (1 page). Two excellent resources for this search are www.uspto.gov and your institution's technology transfer office.

Describe the anticipated regulatory pathway (510(k) vs. PMA, etc.) (½ page). Include information to support your proposed approach. How has the FDA treated analogous devices?

Reimbursement (½ page). Do you expect your device to be reimbursable by Medicare/Medicaid? Why or why not?

Estimated manufacturing costs (½ page). Provide detailed per unit cost breakdown, including volume discounts for components, final assembly, quality assurance, etc.

Potential market and impact (1 page). Who are your customers (i.e., who will be purchasing the product) and who are the end users (i.e., who would be using the product)? If possible, quantify the number of potential users and the benefit they would receive from use of the product. Define the potential market size, selling price, and distribution channels. What is the societal and/or economic impact of your solution?

Letter of Support (Required)

Letters of support demonstrate to reviewers that your project is student-led. If your project or venture is a continuation of the work started by other students and/or faculty before you, the letter should describe the proportion of the design in which your current team has been involved. The letter can be from a faculty advisor, mentor, or industry partner.

Resumes (Required)

Resumes should be no more than **2 pages each** and are required only for key team members. No more than four resumes should be included. We do not need resumes for the Administrative Contact or other non-key team members or collaborators.

Video (Required)

Videos should be no longer than **3 minutes**. Your video should address the following:

- **Technical Feasibility.** Demonstrate that the prototype works or otherwise

describe the function of the device.

- **Product Pitch.** Make a compelling case that the device is innovative and impactful. State the problem that's being solved, why your device/solution is better than what currently exists, and the impact of your team's solution.

Videos (via YouTube or a similar web-accessible site) should be uploaded into the proposal. VentureWell reserves the right to use submitted videos for public promotional purposes (on its website, in promotions for future BME-IDEA competitions). Videos should not contain proprietary information about the innovation. It is the team's responsibility to ensure the video is appropriate for public use.

Optional Application Components

Additional Appendices: You may include appendices to your application. You may add up to five additional documents, no more than 10 MB in total. Documents must be uploaded as a single PDF. Appendices may include but are not limited to:

- Additional letter(s) of support. Effective letters of support will demonstrate the strength of the team and/or the quality of the work accomplished. They can be from industry mentors and/or faculty advisors or others who have worked with the team as applicable.
- Images demonstrating design and/or technical feasibility (drawings, photographs, etc.)
- A summary of prior art
- A literature review summary
- Any data collected as part of testing your technology
- Any other relevant supporting materials

Note: Sheer volume of material is not an asset. Reviewers are directed to use supporting materials only to supplement the 10-page narrative. All key information should be included in the narrative.

Weblinks and/or Videos: In addition to the appendices mentioned above, teams may upload up to three additional links, which may include online articles, videos and/or other relevant online data.

Entry Selection and Notification

Selection: In general, eligible entries will be evaluated on the following five elements:

1. Technical feasibility
2. Clinical utility
3. Economic feasibility and market potential
4. Novelty and patentability
5. Potential for commercialization

Eligible entries are reviewed by external panels of reviewers comprised of individuals from academia, industry, nonprofits & NGOs, and venture capital who have experience in science and technology and/or in the commercialization of early-stage innovations.

Notification: VentureWell strives to notify applicants of the status of their entries via email within 60 days of the submission deadline.

If Your Entry Wins a Prize: All prizes are awarded to the winners' institutions and are considered unrestricted gifts for the purpose of research and educational initiatives related to the winning projects. There is no expectation for services rendered and no reporting required. Funds are disbursed to each of the winning teams' departments to be allocated at the discretion of the Faculty Advisor. VentureWell does not allow any prize money to be used for overhead/Facilities and Administrative (F&A) costs.

Congratulations, you read the guidelines!

If you have any questions, please contact us at grants@venturewell.org or call at 413-587-2172.