Introduction

What is Chemurgy 2.0?

The Chemurgy 2.0 vision is an Iowa known for supporting human needs via advanced biomanufacturing or in other words: Meeting human needs with things that grow. The Chemurgy 2.0 Project will enhance research capacity and infrastructure for Iowa's bioscience and manufacturing industries while supporting the development of a diverse and skilled advanced biomanufacturing workforce.

Chemurgy 2.0 is funded through EPSCoR RII Track-1: Building capacity across Iowa to meet human needs from things that grow and has three technical focus areas:

- Plastics for Additive Manufacturing (PAM)
- Fibers for Flexible and Rigid Materials (FRR)
- Proteins for Diagnostics and Therapeutics (PDT)

And includes novel Social Cognitive Career Theory (SCCT) research aimed at supporting education and workforce development goals.

Learn more about Iowa NSF EPSCoR.

What is the Chemurgy 2.0 Education & Workforce Development (EWD) Seed Program?

The **Education & Workforce Development (EWD) Seed Program** aims to support pilot and starter outreach and education initiatives that:
- implement and test lessons learned by the SCCT team to
- support stronger and more diverse participation in education and workforce development and
- increase interest and persistence in biomanufacturing educational programs within
- the scope of one or more of the project technical aims.

The EWD Seed Program will release an annual call for proposals to support the direct program costs of projects designed to implement at least one SCCT team recommendation with a specific target audience and connected to at least one technical

focus area. Successful proposals will demonstrate promise increasing interest and/or persistence implementing and evaluating at least one SCCT recommendation within a technical focus area and with a desired audience.

Target Audience: The audience is the group of people who directly benefit from participation in the project. Each year, the allowable target audience for projects will expand to include the previous year's audiences and new audiences. This is in order to apply the SCCT's findings as they are announced. The *anticipated* target audiences are:

> Round 1 - community college and undergraduate students (especially undecided/searching students and students declared in an Advanced Biomanufacturing program); faculty and admissions/recruiter staff and/or industry staff/recruiters in Advanced Biomanufacturing.
> Round 2 - high school students, and all of the audiences from round 1
> Round 3 - preservice and inservice STEM educators and career counselors, middle school students, and all of the audiences of round 1 & 2

Chemurgy 2.0 EWD Priorities: Each annual call for proposals will include a description of types of priority projects that will be funded in the current year. The priorities are selected based on the recommendations of the SCCT research team.

Overview

Proposal Window

Round 1 proposals are accepted until 11:59 PM CST on 09-05-2024.

Proposal Requests

Requests are accepted in two categories:

1. **Mini-grant:** Projects requesting up to $5,000.
2. **Impact Projects:** Projects involving team members or participants from at least two partners/organizations and requesting up to $15,000.

The committee anticipates awarding up to $40,000 (4-6 proposals) in the current funding round.

Chemurgy 2.0 EWD Priorities - ROUND 1

Round 1 EWD Seed projects should focus on **providing experiences for the identified audiences** to engage in **building shared language about Advanced Biomanufacturing** and provide a mechanism to **collect and disseminate specific stories** about careers in Advanced Biomanufacturing. These projects should aim to gather and share distinctive narratives highlighting careers in Advanced Biomanufacturing, its significance in addressing societal challenges, and its role in community enhancement. Projects must connect to at least one of the Chemurgy Focus areas. Preference will be given to projects that showcase a diverse range of individuals from Iowa, spanning various industries, educational backgrounds, and career paths.

Providing experiences for identified audiences means that the target audience should be actively engaged in the development of the stories presented in the end product. How this is to be accomplished should be described in the proposal (workshop, virtual interviews, company tours, etc.).

Building a shared language about Advanced Biomanufacturing means utilizing the Chemurgy 2.0 Shared Language document, the Success and Challenges in Biomanufacturing 2023 Report, and other resources to frame the program.

Collecting and disseminating specific stories means that an output of the project should be one or more real products that can be used in the future by the project's lead institution and partners, the Chemurgy 2.0 team, and/or at least one of the target audiences (school counselors, industry recruiters) to further a shared vision of Iowa as a hub of Advanced Biomanufacturing and a source of expertise in these areas. Examples might include, but are not limited to: a limited or on-going podcast, a video, a series of newspaper articles, a lesson plan, an interview protocol, a best practices document, a poster series, a digital comic book, a group of trained facilitators.

All projects must provide a connection to at least one of the Chemurgy 2.0 Focus areas, whether through a formal partnership between the EWD Seed Project team and a focus area team or or by showing that the project's content aligns with the scientific knowledge and methodologies of the specified focus area(s).

Round 1 Target Audiences are community college and undergraduate students (especially undecided/searching students and students declared in an Advanced Biomanufacturing program); faculty and admissions/recruiter staff and/or industry staff/recruiters in Advanced Biomanufacturing.

Important Dates

2023-2024 Dates
- **Call for Proposals Released:** annually on or before July 1.
- EWD Seed Workshop @ Chemurgy 2.0 Symposium Annual Meeting
  - Round 1 July 24, 2024
- **Proposals Due:** annually on the first Monday of August @ 11:59 p.m.
- **Notification to Applicants:** annually on the last Friday in August
- **Project Period of Performance:** September 1 through July 31 annually
- **Consultations:** By arrangement, in September
- **Midterm Reports Due:** annually on the last Friday in January
- Symposium Annual Meeting Presentations: see [Chemurgy 2.0 Events](#) page, generally end of July
- **Final Reports Due:** annually on the last Friday in August
- **Final Accounting Due:** 45 days after the final report is due.

Project Expectations

- A project staff person will present the results of the project at the next Chemurgy 2.0 Annual Symposium Meeting. To facilitate this, projects are required to include travel to the next Chemurgy 2.0 Annual Symposium Meeting for a minimum of 1 senior project personnel in the project budget.
- Project Directors will participate in a consultation (in person or via zoom; 1 hour) with EWD Seed Project PI, Marcy Seavey, within 1 month of the award announcement.
- Project Directors will submit a midterm report and a final report.
- Project staff will implement the SCCT pre-/post-survey with their participants and provide the results with the final report.

How to Apply

1. Review this document including eligibility requirements, proposal guide, the review process, project expectations, and additional resources.
2. *Consider* attending the EWD Seed Project Workshop at the next [Chemurgy 2.0 Annual Symposium Meeting](#). Participation will include an opportunity to learn from the PIs of each of the Chemurgy 2.0 Focus Areas and participate in discussion about EWD Seed Projects with committee members.
3. Download the [Proposal Template](#) and [Budget Template](#) and complete them for your project.
4. Save your completed proposal as a pdf.

5. Submit BOTH the Proposal and the Budget by including them as email attachments and sending the email to: Grant_a.sed6nqlcc3cp53f2@u.box.com TBD by the deadline.

   Please name your files using this format: project_director_lastname-EWDproposal and project_director_lastname-EWDBudget.

   Applications with components not submitted by the deadline will not be considered.

Eligibility

Proposals are not accepted from individuals.

Every project must have a Project Director (PD). The PD is the leader of the project and responsible for all reporting. The PD must apply through an institution that fits one of the following categories:

- Iowa Public or Private accredited Institution of Higher Learning
- Iowa Public of Private PreK-12 School
- State of Iowa, County, or City Governmental Organization (Iowa Department of Education, County Conservation Board, City)
- 501(c)3 Nonprofits operating in Iowa

The lead institution must fit into one of the categories above.

Project partners may also include Iowa-based for-profit businesses. Organizations and individuals based outside of Iowa may be included on the project as long as the budget clearly justifies how all project dollars benefit Iowans.

The lead institution must be registered with <u>SAM.gov and supply their Unique Entity ID</u> on the proposal cover sheet. Proposals submitted without a Unique Entity ID cannot be reviewed. Please note: It can take up to 10 days after completing an application for a Unique Entity ID to become active.

Allowable Expenses

The budget should account for all direct project costs. The budget may include F&A for non-participant costs at the lead institution's federal F&A rate. In the absence of a Federally negotiated rate, applicants may include indirect costs at the de minimis rate of 10% of the project's modified total direct costs.

The budget must include transportation for *at least* one project staff to present at the Chemurgy 2.0 Annual Symposium Meeting. Mileage and/or vehicle rental, per-diem excluding the provided lunch are expected expenses. Hotel accommodations for the night before the meeting may also be included, as needed.

No voluntary match or in-kind are allowed in the project budget. The proposal may discuss funding of projects on-going or next phase *after this project is complete* in the sustainability section of the proposal.

Project funds are released on a reimbursement basis. Project Directors will submit requests for reimbursement with appropriate documentation. Staff will not release funds to projects with outstanding reports.

Non-allowable expenses:
- Equipment and/or Computers.
- Out of state travel for Iowans.
- Sub-awards to other organizations.
- Promotional Swag

Promotional swag encompasses items distributed for marketing or branding purposes, such as baseball caps adorned with a company or university logo. Conversely, items used during the project activity, whether branded or not, are classified as participant or project supplies. Promotional items are not allowed. Reasonable project/participant supplies are allowed. An example of a project supply could be a journal used to take notes during a workshop or a USB drive used to share digital files between participants.

Proposal Guide

Proposal Sections
Section 1 - Cover Page (complete the table in the Proposal Template, does not count toward page limit)
- Title
- Lead Institution
- Lead Institution Unique Entity ID#
- Project Director (Name, Title, Email, Phone, Address)
- Proposal Type (Mini-grant or Impact Project)
- Target Audience
- Chemurgy 2.0 Focus Area(s)

Section 2 - Proposal (Sections A-E should be *no more than* 4 pages, single spaced)
It is anticipated that sections B & C will provide the majority of most proposals.
  A. Project Overview
     Briefly introduce the project, the target audience, the project goal, and 1-3 SMART objectives that will guide the project.
  B. Project Plan
     Describe what will be done *to meet the objectives*; how will the audience be recruited and what will the audience do/experience; what will each person/partner on the project be responsible for?
  C. Project Integration
     Specifically address how this project will address this Round's Chemurgy 2.0 EWD Priorities. Pre-K-12 projects: How will the project increase interest and/or persistence in advanced biomanufacturing within the target audience? All other projects: How will the project assist the target audience to better promote advanced biomanufacturing with Iowa Youth?
  D. Assessment Plan
     All projects will be required to collect pre- and post-survey data from participants using an SCCT tool (which will be provided) and to communicate with the SCCT about their struggles and successes. Project directors may implement additional assessments and are encouraged to build program assessments into their projects as a strategy to improve sustainability and/or to further knowledge about their specific project. Knowing that all participants will complete surveys, use this space to describe the project team's additional assessment plans. If there are no additional plans, please state: SCCT Tools will be used.
  E. Sustainability and Dissemination
     How will the partner organizations continue, build from, or learn from this project? How will the final product or knowledge gained be disseminated? Successful projects will include either a sustainability plan, or a dissemination plan that goes beyond presenting at the Chemurgy 2.0 Annual Symposium Meeting, or both.
  F. Budget Narrative (*does not count toward page limit*)

A budget narrative is an explanation of how each line item contributes to the project *and* how the subtotals were calculated. See example budget narrative for guidance.

Section 3 - Proposal Submission Documents

- [Project Proposal Template](#) (.doc template, please submit as a pdf)
- [Budget Template Form](#) (.xlsx template)

Additional Resources

- [Chemurgy 2.0 Website](#)
- [GSA PerDiem Rates](#) (for travel)
- [Budget Narrative Example](#)

Review Process

Proposals will go to the Chemurgy 2.0 EWD Seed Program Committee for review.

Within the proposal, Project Directors will identify which Chemurgy 2.0 Focus Areas their proposal addresses. Each proposal will be reviewed by education and outreach reviewers and an expert assigned by the Principal Investigator from the selected Focus Area. Projects that span multiple Focus Areas may be reviewed by additional content experts at the discretion of the EWD Seed Program Committee. Reviewers will use the project rubric to develop a score and supporting comments for each proposal. The EWD Seed Program Committee will then meet and discuss all proposals that reach a specific threshold average score. The EWD Seed Program Committee will award funding to projects based on the amount of funding available, the amount of funds requested, project scores, and to support a diverse group of projects across the current priorities.

Incomplete proposals will not be reviewed.

TIPS

Successful proposals will include all of the requested information in the order requested.

Keep in mind that more is not always better. Proposals with a specific target audience and clear and achievable goals will be selected over projects that "reach everyone" and/or "do everything".

Previously Funded Projects

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Ask a Question

Questions about the Chemurgy 2.0 EWD Seed Program? Email Marcy Seavey at marcene.seavey@uni.edu.