2021 Recap

• All in-person Project SEED research is **canceled**
• Project SEED is continuing with two virtual options
  – **Virtual Research Project Pilot** (this slide deck’s content)
  – **Virtual Summer Camp**
    • A six week virtual camp for Project SEED students, facilitated by ACS staff
    • Student applications will open shortly (March or early April)
    • Volunteers needed, more information coming shortly
Thoughts behind the virtual research pilot

Committee prioritization for the project proposal selection

- **Project**
  - Is the project robust for virtual delivery?
  - Is the project sufficiently chemistry-related?

- **Mentor**
  - Is the mentor available and willing to engage with the student throughout the program?
  - Can the mentor participate in informational interviews?

- **Student**
  - Is the student independent, self-starting, and disciplined for a remote project?
  - Is the student prepared academically for the project?

- **Committee**
  - Serves as an experiment to test what works, what doesn’t, and how to scale
  - 20 projects will be selected (20-30 students)
  - End of summer symposium to confirm student comprehension
  - High level of mentor engagement (higher than normal)
What stays the same?

• **Project topics** should still have a sufficient chemistry overlap

• **Student stipends**
  – $3,200 for a Summer I (first-time participating student)
  – $3,800 for a Summer II student (returning student)

• **Recommended match funds**
  – $1,250 per Summer I student
  – $1,500 per Summer II student

• **Students presentations required** at the end of the virtual research program (now oral reports instead of written)

• **End-of-summer evaluation surveys** will need to be completed by student, mentor, and coordinator
What is new?

- **Mentor Supplement:** Even virtual research requires some funding. Let us know what additional costs this will incur.
- **Mentor Engagement:** Mentors will be required to participate in the student selection process and 2 informational interviews.
- **Program Length:** Programs can now be as short as 6 weeks (student stipend will be prorated for 6 or 7 weeks).
- **Virtual Research Pilot Symposium:** Part of evaluating the success of the pilot is seeing what students learned. ACS Staff and the Committee will host a symposium for student presentations.
- **Students will be able to participate in once weekly webinars (hosted by the ACS Project SEED Virtual Summer Camp):** We know that program enhancement activities will be even tougher in a virtual setting. ACS can manage that for you.
- **Student payment:** ACS staff will pay the students directly.
- **Project Types...**
Project Types (Examples)

- **Virtual Lab Partner**: Students virtually partner with/shadow someone in the lab. Student learns the research basics, but works on characterization and analysis techniques that can be performed remotely.

- **Traditional computational project**: Student can work on remotely with the supervision of a mentor.

- **Chemistry informatics/chemical data**

- **Chemistry curriculum design**

- **Literary research/review projects**: Student learns to read papers, conduct searches, and prepare for a literature review paper.

- **Virtual Lab experiments**: Take full advantage of the online tools to simulate the lab setting.

- **...and more!** If you have creative ways of engaging students remotely, we welcome you to submit a proposal.
More Virtual Project Details

- “Kitchen chemistry” or “garage chemistry” is NOT allowed
- Contactless drop-offs or pick-ups are ok (ie. sample collection, materials, equipment)
- Two-step application process
  - Project details and plan for student engagement
    - Project abstract
    - Student activity summary
  - Student selection criteria
    - Geographic limitations
    - Existing pool of student applicants or open?
Project Proposal Form

Intended for the Mentor to complete and the Coordinator to submit on their behalf.

- Project title, abstract, and discipline
- How many students for the project?
- Project location
- Mentor name and contact information (mentors will be contacted to digitally sign off on the mentor/student pairing).
### New Project Proposal Questions

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<thead>
<tr>
<th>Current Questions (Safety-focused)</th>
<th>Updated Questions (Engagement-focused)</th>
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<tbody>
<tr>
<td>Student Activity Summary: Describe a typical day or a week for the student.</td>
<td>How many hours per week are they expected to work (both online and offline)?</td>
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<td>What are the most likely hazards to the student(s)?</td>
<td>If approved, how much would you anticipate you would need for this mentor supplement and for what would it be used? What specifically does the student need to participate fully in the research project?</td>
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<td>What trainings, PPE, engineering controls, or other changes will be implemented to minimize the risks from those hazards?</td>
<td>How will you assess student understanding of the content? What is the anticipated timeline that students should learn specific concepts? For example, what should the student know or be able to demonstrate by the first week? Midway through the program? By the program’s end?</td>
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How will proposals be selected?

• **Stage One**
  – Is the project appropriate for a high school student based on concepts, time required, and amount of supervision/mentoring?
  – Will the student have sufficient virtual support and engagement throughout?
  – Committee will look for a range of project types, models, and program lengths

• **Stage Two**
  – Mentor engagement (can the mentor commit to the pilot deliverables)
  – Student recruitment plan (Should students reside in a specific geographic area? Are students required to have previous in-person lab experience, or have taken a specific number of courses/learned specific concepts?)
Virtual Summer Camp applicants that are a good fit for projects will be contacted to interview for a virtual research project.

Students not selected for the Virtual Research Pilot can still be accepted into the Virtual Summer Camp.
Student Application and Selection Process

- All students are required to apply via the Project SEED Virtual Summer Camp portal.
- ACS will not “advertise” to students until projects are selected, and will only advertise as appropriate (for example, if there are geographical limitations or students with specific skill sets or chemistry coursework taken).
  - Note that coordinators/mentors should not “promise” or “guarantee” virtual research or virtual summer camp selection to students.
- If coordinator and/or mentor has a specific applicant pool in mind, those students must apply via the Virtual Summer Camp (those applications will then be pulled for your review).
- Coordinators/mentors work together to select students for a virtual interview.
- Mentor makes the final selection (coordinator can make recommendations).
Timelines

• Virtual project proposal application window
  – March 12 – 22
  – ACS Staff “office hours” will be offered to help as needed
• Student application window
  – March/early April
  – Student application will open near or after virtual projects are selected
Questions

• Are written project reports still required?
  • No, the oral presentation aid (poster or slide deck) will be sufficient

• Should match funds be sent to the National office?
  • Yes, we will provide more information on how to send that over

• Can a graduate student work solo, or should the “official” mentor be a professor?
  • Graduate students can serve as a mentor, but ensure that the student has sufficient support. Partnering graduate students/teams of mentors, will help here

• What if a site has 2 different labs? Should both projects be listed in a single form?
  • Each site can submit as many projects as they would like, but please add them as separate projects

• What is the maximum mentor supplement amount?
  • We do not have a hard number on this, but anything over $5k will likely be denied. We recommend sharing what expenditures are prioritized
Questions

• How many hours are students expected to work?
  • Ideally, students should work for about 30 hours per week. This can include group meeting time, online work/activities, camp activities, etc.

• Has the webinar schedule been set? What happens if the webinars don’t start at the same time as the virtual research project?
  • The schedule is currently being planned, and should be finalized by or around June 1st.
  • Ideally, the student starts the virtual research project first, and then adds in the webinars.
  • Students will be able to choose which sessions (~1hr each) they would like to attend.

• How do you know if there is a coordinator at your university?
  • First check out the Project SEED website for previously participating sites
  • Then email Projectseed@acs.org for more assistance in getting you in touch or to double check

• Is there a limit to how many projects a site can submit or can be accepted?
  • No, but keep in mind that a lot of factors are at play. This includes the total number of sites that apply, the types of projects submitted for consideration, and the strength of the proposals