

## **Expanding Potential 2015-6 Seed Project Awardee Final Report**

**The purpose of this final report is for readers to understand the motivations, processes, and outcomes for the seed project awardee's programming in order to sustain and scale these efforts.**

**Please outline your project. When responding, take into consideration if someone wanted to reproduce your program is reading this answer.**

### August of Year Round Program

- Contact local high schools in an attempt to recruit junior and senior high school students genuinely interested in STEM. Generate a list of questions.
- Within the institution, recruit a comparable number of mentors, and recruit PIs and other prominent figures to provide mentor training (when to meet with your fellow, how to communicate with your mentor, what to do with sensitive information, how and who to contact at their school, logging mentoring hours, etc.).
- We had multiple Clear Direction Academies throughout the year that focused on each of the areas of STEM by working professionals that are local and willing to teach what they do, **PRO BONO!!!!** One Saturday out of every month is used for this, so make sure there is a very reliable and consistent space for the presentations.
- It's extremely important to keep a low cost so reach out to companies that are willing to donate food, resources, supplies, etc.
- Provide an end of the year celebration that recognizes the work of the team and fellows for their dedication to the program.
- Try to get as many PIs involved as possible.

### **What were your initial goals for your program?**

Clear Direction's mission is in line with that of Synberc's – to increase diversity in STEM. Specifically, Clear Direction provides an invaluable opportunity for underrepresented ethnic/racial minority high school students to receive dedicated mentorship by students pursuing STEM careers at top-tier institutions. Clear Direction offers an innovative approach to address challenges discovered by previous diversity-focused STEM-associated programs. For Clear Direction, that innovation lies in continued mentorship, long after the students' initial participation in the program. This level of engagement will provide the guidance and support that many young students need, as well as provide teaching and mentoring opportunities to our student volunteers. We recently launched the Clear Direction pilot program, with graduate and medical student volunteers committed to "Lighting the Path to STEM for Underrepresented Minority High School Students". Those goals are interwoven into my vision of providing access at the most elite level to high school students who couldn't buy this access, and are very unlikely to be chosen for such opportunities.

### **How have your goals changed? What motivated these changes?**

Our goals remain the same, and have matured over time. The ideals are constant though. We continue to provide access, a lending hand, ear, and voice in their favor. Institutionally, Clear Direction has matured in the way it selects its fellows. Our initial thought was that we would just take any high school junior who verbally or literally expressed interest in STEM. Since, our approach has changed to an application based model, in which Clear Direction fellow

candidates are interviewed for the admin team truly assess the dedication of the student's passion for STEM pursuance.

**How does your program address diversity and inclusion issues? How is your program enacting change?**

Clear Direction addresses diversity by providing top-tier STEM access to minority high school students in NYC. With all of its participants and the majority of the mentors being racial minorities, Clear Direction is providing inspiration for young minority students afraid to pursue STEM fields. They will be exposed to people who look like them and come from similar backgrounds who are already in graduate school or beyond. Several mentors in the Clear Direction program have already discussed how discouraging it was without a mentor or role model who looks like them. It is a common misconception for many young people today that minorities do not participate in STEM fields; this is something we would like to change with Clear Direction.

**What partnerships were necessary to successfully launch this project?**

A critical partnership was fostered with underserved high schools in NYC. We partnered with Dr. Jeanne Garbarino, The Rockefeller University Director of Science Outreach. She initiated conversations with principals at various high schools, and provided us a space to have conversations as to how our program could provide a window of opportunity for their students.

**How can your program be scaled and applied to different institutions?**

In order to scale Clear Direction to other institutions, administrators and dedicated graduate students need to be in place. It is also imperative that those students be students of color, to provide a physical aspect of the program that, in my opinion, is indispensable. There also needs to be a small amount of financial backing to provide programs, as we were able to do. It is also important to have individuals leading the effort with wide-casting networks that are flexible and willing to participate in the effort. Lastly, their needs to be genuine passion, and experience in mentoring so that subsequent mentors are provided with a go-to resource.

**How did the seed project funding help your project?**

Candidly, there would be no Clear Direction Mentoring without the funding from Synberc. We had no idea how we would sustain our first-year efforts. It wasn't until an email from Synberc set us off into the New Year, announcing that we were awarded the seed project funding. We have been able to provide sustenance, STEM experiences, trips to colleges, a trip to the Cold Spring Harbor Laboratory, and many other things simply because of the seed project funding. We were also able to provide SAT prep materials to each of our 15 Clear Direction Fellows.

**Describe how feedback from the Expanding Potential Workshop helped inform your project.**

Having conversations on how to approach project development, how to implement certain mentoring techniques, and meeting other seed project awardees and collaborating with them has made our program so much richer. For instance, I have spoken with a few of the attendees from UC Santa Cruz about a skype chat with our fellows to give them a perspective of what the UC system is like and field other questions. In addition, Synberc has been a mountain of help in terms of logistics, and helping me to better brand Clear Direction.

### **What advice would you give to someone initiating this project at another institution?**

Be committed to a long haul. It is an uphill battle in terms of turning the ship of diversity in STEM. While there is an amazing feeling to provide this type of access to students of color in high school, it doesn't really get at the heart of what I would consider to be the issue, those leading the STEM pipeline. One question I often ask myself is, "How is what you are doing with Clear Direction right now affecting change in terms of those who are leading the STEM fields? How is this changing their perceptions?" I ask those questions because I am aware that I am encouraging students of color to go into a sector of society that is not that diverse, which then may come back to me as "Why did you send me here knowing I would potentially be alone?" That is one thing to keep in mind. Selling these kids false dream of roses and gold is wrong and should be avoided at all costs. Instead, provide a realistic picture of STEM from every facet.

### **Please summarize any additional results that are not mentioned in the above answers.**

Information we considered when generating the program is listed below.

What is a Clear Direction mentor like?

- Clear Direction Mentors are current PhD students that have a drive and motivation to give back to others.
- They are prompt, dedicated, passionate, inspirational, and able to communicate clearly about their lives, challenges, ambitions, and beliefs.
- They have at least 1-3 hours a week to check in with their fellow.
- They are willing to commit to night or weekend meetings/academies/field trips.
- They can come from any nationality, racial, ethnic, or religious background, are any gender, any age.
- They have experience mentoring. Whether it's younger siblings, volunteering, tutoring, in their religious congregation, through camps, after-school programs, or as teachers themselves within classrooms and schools, these individuals have experienced the challenges and joys of giving back to future generations.

What are the characteristics of a Clear Direction fellow?

- High School Junior or Senior that has previously expressed interest in STEM
- Highly motivated
- Underrepresented minority student in STEM – racially, socioeconomically, or for reasons beyond the currently documented standards by NIH and NSF
- Curious, creative, articulate passionate, and ambitious
- Respectful, open to learning, hungry for experiences that can catapult them to the next level of achievement, contribution to society, and scientific understanding
- Dedicated to showing up, being on time, and focused on the task at hand
- Clear Direction fellows can be shy, outgoing, any background, any nationality, any gender, any religion, and have interest in any aspect of science.

Application for Fellows

- Transcript
- 2-3 letters of recommendation

- >1 from Science Teacher or Principal
- Questions (multiple choice):
  - I am a:
    - Junior
    - Senior
    - Other: \_\_\_\_\_
  - I am:
    - Male
    - Female
    - Trans
    - None of the above
  - I am:
    - Interested in pursuing an education in Science
    - Not interested in pursuing an education in Science
    - Unsure
- Questions (300 words):
  - Why are you interested in Science? What parts of Science are most exciting to you?
  - Have you ever experienced any barriers when trying to think about Science, engage in Science, or plan your future for an education in Science?
  - Is there anyone in your life that gives you advice and support: a coach, a mentor, a parent, a teacher? What do you think having a new mentor to help guide your Clear Direction in Science would bring to your life?
  - Please describe a challenge you faced once and how you solved the problem.

### **Quote/testimonial**

“There are dreams that come along in our mind, and many we choose to discount because of the massiveness of that dream. Clear Direction mentoring underrepresented minority kids, just like I was at one point, was nothing more than a dream. In the first year, it started as a chance to give those kids exposure to SCIENTISTS who looked like them and understood their challenges. Now, Clear Direction mentoring has been talked about on the West Coast of the U.S., when it was started on the East Coast. It’s on the brink of becoming a non-profit organization. There are over 45 very bright and successful people pushing this effort forward. Synberc was one of the initial entities to make a DREAM a REALITY. For that, we can never say Thank You too many times. I can never email Shaila Kotadia too many times, speaking of the fears I have of growing this thing bigger. Clear Direction is forever indebted to Synberc for the Expanding Potential Seed funding. From us to you, THANK YOU SOOOO MUCH.”