

# Peer Mentoring within a Summer Research Program



## A programmatic summary

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*SSRPeers was a piloted peer-mentorship program that sought to connect SSRP students to peers in different research tracks as a mechanism for fostering community within the program and providing a long-term networking relationship built on shared interests and goals. The SSRP is a RockEDU-led summer program that places high school students into specialized biomedical research tracks.*

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## Inspiration

The SSRPeers program was inspired by the BIOME's [Postdoc Buddy System](#), which ran in March 2022 and 2023. The Postdoc Buddy System sought to connect postdoctoral fellows--many of whom began working at Rockefeller after the start of COVID-19 pandemic—to scientists in different labs as a way to revitalize the diminished social connections on campus. This program connected postdocs across levels of seniority by placing individuals into “pods” where they then participated in a series of personal and professional development activities. With a similar goal, albeit a different target community, SSRPeers was launched with the goal of helping SSRP students cultivate transferrable professional skills and make connections to one another on a 1-1 basis. The professional development component focused on developing networking skills, exploring different career paths and gaining exposure to lab techniques that were beyond the scope of the SSRP. The personal development component focused on building a trusting, 1-1 relationship with a like-minded peer who can serve as a friend, ally, and potential future colleague. At the end of the day, this program ensures that our students will leave with at least one solid connection (hopefully among many more!).



## Logistics

The SSRPeers program was piloted in June 2023 and ran for the duration of the SSRP. Students were matched with peers based on academic and personal interests, which were assessed by an interest survey. Students were also matched to ensure that they were not in the same research track as their matched peer. Some optional questions were included to gauge students' wants and needs out of the program as well as match preferences.


## The Near Peer Mentor

The near peer mentor was a role held by recent Hunter College graduate Zahin Quayyum from March 2023 - August 2023. Zahin joined the RockEDU team to support our students through LAB Jumpstart and SSRP. As a recent college graduate with experience joining a new lab space and navigating the interpersonal elements of scientific research, she provided invaluable support for our high school students.

In her role as the Near Peer Mentor during LAB Jumpstart, Zahin gained the trust of our students and served as a safe and reliable source of information on career advice, developing a sense of belonging in the lab, and combatting imposter syndrome. In addition to helping our students with interpersonal skill development, she was critical in helping them learn hands-on research skills, including fundamental lab techniques and reading scientific literature. After Jumpstart concluded, Zahin continued supporting both Jumpstart and SSRP students through our peer mentoring program, SSRPeers. Zahin launched this initiative alongside RockEDU Community Manager, Lizzie Krisch, in an effort to provide a structured peer mentorship program that would support the social and professional development of our students.

## Onboarding

Orientation for SSRPeers was held during the first week of SSRP. Orientation covered the expectations for both participants and supervisors of the program. Students learned what their responsibilities would be—including weekly peer meetings, a one-on-one check-in with the Near Peer Mentor, attendance of at least two SSRPeers-sponsored events, and survey responses—as well as what the RockEDU team would be responsible for providing as support. At RockEDU, we believe in bi-directional accountability,

 which involves being upfront about expectations for all parties involved in a professional relationship.

## **Near peer mentor check-in + surveys**

During the first two weeks of SSRPeers, students were required to individually meet with the Near Peer Mentor, Zahin. The meeting was designed to broadly assess student well-being -- including how they've settled into the SSRP, their first meeting with their SSRPeer, and general reflections about their research tracks and project aspirations. The questions asked during the check-in were consistent with these goals, and also served to open lines of communication and support between Zahin and each SSRPeer.

These check-ins were then later replaced by online surveys--given at the midpoint and end of the program--and addressed logistical elements of the program (how many meetings occurred, how many events attended, etc.) as well as favorite and least favorite experiences within the program. At the end of the program, we asked students to share recommendations for future iterations of SSRPeers.

## **Weekly meetings**

The weekly one-on-one peer meetings were established with the goal of having each student connect socially with their peer, discuss their progress in the program, and navigate through exercises and conversations to support their scientific and personal growth. The RockEDU team set up a tab in the campus cafe, so that students could get snacks and beverages during their meetings. In the spirit of developing autonomy and time management skills, students were responsible for setting a standing time for their weekly meetings.

Each meeting was supported by “themed” discussion guides that were intended to guide the conversations and highlight relevant topics based on the week of the SSRP. At the end of each discussion guide, we assigned an article that related to that week’s discussion, and gave the peers an opportunity to reflect on their experiences. *All discussion guide PDFs can be found in our save & share tab, to the right!*



**First Meeting:** The first meeting focused on the peers getting acquainted with one another and included discussion about personal interests, goals for the program and career aspirations. The [first article](#) focused on the role of failure within science, and shared advice for navigating through failure within research.

**Second Meeting:** The second meeting coincided with the beginning of the students' independent research projects. As a result, this meeting addressed students' feelings about entering this new chapter of the program and provided opportunities for them to practice talking about their science. Up until this point of the program, students had been developing fundamental research skills and attending lectures on the applications of scientific research. As the students pivoted to pitching their own projects, we utilized this opportunity for them to practice explaining their research goals and the potential broader implications of their work. The assigned [article](#) for this week focused on the value of embracing discomfort within research. Specifically, the author highlights the importance of being "okay" with uncertainty of research, and not allowing these challenging experiences to discourage us from exploring science.

**Third Meeting:** The third meeting occurred at the midway point of the program. This felt like a good opportunity for our students to pause and reflect on their time in the program. Specifically, students had the opportunity to practice some "self-marketing" by discussing their acquired skills in the context of their future goals. They also discussed how to organize their list of skills into a narrative that could be included on a resume or CV. The third [article](#) focused on building confidence amidst inevitable scientific challenges. Entering a new research environment is enough to engender imposter syndrome for anyone; experiments fail, social dynamics can be challenging, and figuring out your "place" can take time. This feels even more pronounced in high school, when lab-based research is an entirely new experience for many students. Finding opportunities to boost our students' confidence is of utmost import as they navigate through the successes and hurdles of authentic scientific research.

**Fourth Meeting:** The fourth meeting addressed the end-of-summer poster presentation that serves as a capstone to the SSRP. Students practiced



presenting their research in an accessible and jargon-free manner. This activity was designed to help build their confidence around the reason and meaning of their research and provide a low stakes opportunity for feedback. The [article](#) assigned for this meeting focused on advice for presenting scientific research to a non-scientific audience. Students were encouraged to reflect on past experiences with technical presentations and think of their research in terms of what an audience would need for maximal comprehension.

**Fifth Meeting:** The fifth and final meeting focused on ways in which students could maintain connections with their new network of SSRP peers and mentors. The meeting facilitated thoughtful reflections on students' research and posters—including discussion of unexpected challenges, current confusions, and public speaking tips. SSRPeers also had the opportunity to share their “next steps” after SSRP, and develop plans for continued relationships with one another, and discuss sustainable and respectful ways to keep in touch with mentors. The assigned [article](#) provided tips for keeping in touch with mentors after the formal relationship ends. This article also offered opportunities for web-users to “comment” on each tip and offer their experiences and opinions.

## Events

In addition to weekly required meetings, the SSRPeer leadership coordinated a series of events. Some of these events were taken directly from students' responses on the SSRPeer interest form, while others were based on interesting “happenings” around campus. The weekly events provided additional networking and skill development opportunities. These events were created in collaboration with the departments and laboratories at Rockefeller.

**Event #1 Digital PCR workshop:** Rose Wang, a Research Associate in the Simon Lab, hosted the SSRPeers for a digital PCR workshop. Alongside her colleagues, Dr. Wang walked us through the steps of PCR and explained the differences between the digital PCR machine and the Kingfisher Machine. Students then watched a demonstration of both machines as they were



loaded with samples to be analyzed. Students were able to learn about the process and importance of digital PCR.

**Event #2 Hospital tour:** Andrea Ronning, the Director of Bionutrition at the Rockefeller University Hospital, guided the SSRPeers students on a behind-the-scenes tour. Students learned about the clinical nutrition studies—those focusing on metabolism and the diets of the patients—and practiced weighing out different portions of food and liquid to simulate the precision necessary to conduct these sorts of studies.

**Event #3 Octopus lab tour:** Dr. Marcelo Magnasco and Aquarium Technician, Felix Miranda, led SSRPeers on a tour of Dr. Magnasco's lab. Dr. Magnasco's lab focuses on using computational and mathematical models to study the systems of organization within different living organisms. He previously used dolphins as a model, but after limitations to his research caused by the COVID pandemic, he began studying octopuses as a model. The students were able to see the different octopuses within the lab, and learn about their intelligence as demonstrated through problem-solving and pattern recognition.

**Event #4 PIT tour:** The Precision Instrumentation Technologies (PIT) facility provides resources and training for Rockefeller University staff and scientists to create machinery prototypes and research tools. The PIT contains multiple different machines, including a 3D printer and laser cutter as well as different electrical engineering stations. The engineering staff at the PIT are also available to design equipment for labs as needed. SSRPeers took a tour of the PIT, where they learned the purpose and function of each machine.

**Event #5 Postdoctoral association summer seminar series (weekly):** The summer seminar series, hosted by the Postdoctoral Association, was a weekly seminar series that took place on Thursdays from 3-4pm. The series featured the research of graduate students and postdoctoral fellows, and concluded with a Q&A session. These talks helped SSRPeers get a glimpse into research areas and meet members of the Rockefeller community.

## Additional Support



The events and opportunities provided in SSRPeers were designed to meet the interests and needs of the participants. With that goal in mind, we offered “one off” opportunities for students to be connected with individuals or experiences that would help their professional development. Students were responsible for approaching SSRPeer leadership with these requests. For these interactions, we allowed SSRPeers to use our tab in the campus cafe. Below are some examples of connections that we were able to make.

- One student had recently moved to Israel and was connected with an Israeli scientist to discuss research opportunities abroad.
- Two students with an interest in pursuing an MD-PhD were connected with an MD-PhD student at Rockefeller/Cornell

## Resources

[SSRP week 1 activity](#)

[SSRP week 2 activity](#)

[SSRP week 3 activity](#)

[SSRP week 4 activity](#)

[SSRP week 5 activity](#)

