



Updated January 2, 2022

The High School Catalyst Program (previously The Weill Cornell Medicine High School Immersion Program) is a partnership between the Weill Cornell Graduate School and the Memorial Sloan Kettering Postdoctoral Association. The High School Catalyst Program is designed to offer hands-on biomedical research experience to New York high school students from self-reported underrepresented minority, disadvantaged, and/or first-generation immigrant backgrounds.

COVID19 Updates for 2022 Programming:

The Catalyst Program also runs in collaboration with the Harlem Biospace non-profit HYPOTHEkids Bioforce program. (More info can be found here: <https://www.hypothekids.org/new-york-bioforce>) The Bioforce program independently receives their own applications from high school students who are interested in life sciences research and looking to receive intensive lab training prior to the start of the Catalyst Program in the summer. After the conclusion of the Bioforce program at the beginning of July, students will immediately begin their summer research experience in the Catalyst Program at a WCM or MSK laboratory. Catalyst gives priority to high school students enrolled in Bioforce, so we highly recommend applying to their program! In addition, Bioforce students receive a generous stipend for their participation and effort in the program. The Bioforce application can be found on the page using the link above.

Due to the ongoing COVID-19 pandemic, the Catalyst Program has moved to a completely virtual platform, starting in the summer of 2020 through summer 2022. Despite some of the shifted program requirements, the goals and overarching expectations for the Catalyst Program have remained the same: to provide high school students with a rigorous 7-week biomedical research experience through a fruitful mentor/mentee pairing as well as lively virtual programming including a weekly selection of seminars, workshops, journal clubs, and discussions. However, in lieu of a hands-on project, students in the Catalyst Program will be guided through the process of writing a 2-page National Science Foundation (NSF)-style research proposal typically pertaining to his or her mentor's field of research. Students will then present their research proposal in the form of a short talk at the conclusion of the program. The 2022 Catalyst Program requirements can be found below.

2022 Catalyst Program Requirements (Virtual)

- **Start date: July 5th, 2022**

- **End date: August 19th, 2022 (7 weeks)**
- **FULLY VIRTUAL PROGRAM**
- High school student mentees will be paired with a graduate student or postdoctoral associate mentor to be **guided through the process of writing a 2-page research proposal**.
- High school student mentees are expected to **meet weekly with their mentor** to advance their research proposal **AND** attend mentor's lab meetings, program seminars, workshops, journal clubs, discussions **AND** complete a few short assignments, submit the final research proposal, and present their research proposal to their peers at the conclusion of the program.

In general, high school students are expected to learn about their mentor's research area (typically will also include attending their mentor's lab meetings), advance their research proposal, and present their findings and summer research topic in the form of a short talk at the conclusion of the program. Accordingly, graduate student and postdoc mentors are expected to provide mentees with the necessary reading materials for introducing them to the research topic, guide mentees through the process of writing a 2-page research proposal, and support mentees through both the writing portion as well as the intellectual journey of the summer research experience. Importantly, mentors are expected to dedicate a significant portion of their time and effort to supporting their Catalyst mentees during the 7-week program.

For prospective students (not interested in or eligible for the Bioforce program):

We are looking for highly motivated, enthusiastic, and committed high school students for the Catalyst Program! Students **MUST BE 16 YEARS OF AGE** at the start of the program (unfortunately we cannot make any exceptions). If you are interested in applying, our application can be found below. **Applications for the 2022 Catalyst Program are due 11:59PM March 31st, 2022.**

2022 Catalyst Application:

[\[https://weillcornell.az1.qualtrics.com/jfe/form/SV_2avHDhZSevfClfP\]](https://weillcornell.az1.qualtrics.com/jfe/form/SV_2avHDhZSevfClfP)

If you have any questions about the program, please email hscatalystprogram@gmail.com and one of our program leadership will get back to you.

For graduate students or postdocs interested in serving as Catalyst mentors:

Please email program Co-Presidents, Gabriella Chua (gnc4001@med.cornell.edu) and Alexander Emmanuelli (ade2005@med.cornell.edu) directly with your name, position, laboratory, and broad research topic. Graduate students who are interested in serving as mentors must be post-ACE. First-year graduate students may be eligible to serve as a co-mentor with a post-ACE student or postdoc.

Pre-COVID19:

For 7 weeks, accepted high school students will work closely with a graduate student or postdoctoral mentor to advance a scientific project in a WCM or MSK laboratory as well as attend a selection of seminars, workshops, and journal clubs designed to introduce high school students to medical research and life as a scientist. Mentees and mentors will be paired based on their scientific interests, and the specifics of the project will be designed by the mentor and shaped by their expertise. High school students are expected to learn about their mentor's research area (typically will also include attending their mentor's lab meetings), assist with experiments at the bench, and present their findings and summer research topic at the conclusion of the program. Accordingly, graduate student and postdoc mentors are expected to provide mentees with the necessary reading materials for introducing them to the research topic, design a scientific project for mentees at the appropriate level, and guide mentees through both the hands-on portion as well as the intellectual journey of the summer research experience. Importantly, mentors are expected to dedicate a significant portion of their time and effort to supporting their Catalyst mentees during the 7-week program. Mentor/mentee pairs should follow the basic program requirements below, but have the flexibility to exceed them.

Catalyst Program Requirements:

- Approximately 25 hrs or more per week of laboratory work with a mentor.
- Hands on experience setting up and/or carrying out experiments.
- Discussion and interpretation of experimental results.
- Introduction and exposure to relevant literature and methods in the research area, including reading scientific articles and attending journal clubs, seminars, workshops, and lab meetings.
- Attendance at the commencement ceremony at the start of the program (for both mentors and mentees).
- Presentation (for mentees) and attendance (for both mentors and mentees) at the poster session and concluding ceremony at the end of the program.
- Attendance at selected seminars, workshops, journal clubs, and discussions throughout the program duration (for mentees).