

The Huntsman Cancer Institute *PathMaker Bridge* Program for Educators

Program Information

The PathMaker Bridge Summer Research Program for Educators at Huntsman Cancer Institute (HCI) is a two-year summer research and curriculum development experience for middle and high school science teachers. Teachers who work with students from underrepresented groups will work in an HCI cancer research laboratory for six weeks during each of two consecutive summers. Participants will translate their experience to the classroom by developing and testing curriculum materials related to their research as appropriate. Prior to and after the six-week experience, teachers will participate in online professional development courses delivered by science education professionals from the University of Utah Genetic Science Learning Center (GSLC). Participants of the PathMaker Bridge program will receive a generous stipend in addition to 10 credit hours of graduate work per year, thus earning 20 graduate level credits during their two years of participation.

The PathMaker Bridge Program has two components:

- **Pre– and post–research experience courses.** These courses have been designed to prepare you for the research experience and support you in developing level-appropriate curriculum materials related to your research. They will take place online and will include work to be done at your own pace and some whole-group video conferences.

The pre–research experience course will

- Update and build science content knowledge needed for the research experience. The first year’s focus will be on genetics and the second year’s focus will be on cell biology.
- Provide training on how to read and understand scientific papers in preparation for the research experience.
- Require roughly four weeks to complete.

The post–research experience course will

- Focus on curriculum development, refinement, implementation, and assessment.
- Include collaboration and peer review.
- Be completed in stages during the school year, for a total six-week time period.

- **Six-week on-campus research experience.** This portion of the program begins June 15 and ends July 23. Participants will be partnered with a research lab at HCI for a one-on-one mentored research experience in basic, clinical, or population-based science. Additionally, participants will engage in weekly meetings with other participants in the cohort and will begin work to build innovative curriculum materials with a science education specialist. Educators are expected to commit 40 hours a week to the program activities, including their individual research lab and other program-related activities.

Questions?

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Pre–Research Course: May 2020
Research Experience: June 15–July 23, 2020
Post–Research Course: August 2020–April 2021

Application Deadline: 11:59 p.m. on Sunday, March 8, 2020

Eligibility Criteria:

Applicant must be a current middle school or high school teacher employed and engaged in science teaching.

Applicant must be willing to commit to two consecutive years, for an equivalent of at least three months of full-time effort each year, including a six-week lab experience during the summers, plus a pre– and post–research experience professional development program.

Applicant must be interested in learning more about cancer research.

Applicant must demonstrate strong interest in designing innovative curricular activities to engage students in science.

Applicant must demonstrate commitment to encouraging students of all backgrounds to pursue science, and, in particular, careers in biomedical research.

Special consideration will be given to applicants who are themselves from a historically underrepresented group in biomedical research or who work with large population of students from such groups.

Special consideration will be given to teachers from the same district who apply as a pair. Teachers earlier in their careers are encouraged to apply.

Applicant must be available to commit 40 hours per work week to the program during the six-week lab experience.

Program Timeline:

| Year 1 | | |
|---|--|---|
| May–June 2020 | June 15–July 23, 2020 | 2020–2021 Academic Year |
| Pre–research experience course: genetics (online) | <ul style="list-style-type: none"> - Research experience (six weeks) - Weekly connection meetings (five weeks) - Curriculum development workshop (one week) - Research presentations | Post–research experience course: Level 1 (online) |
| Year 2 | | |
| May – June 2021 | June 14–July 23, 2021 | 2021–2022 Academic Year |
| Pre–research experience course: cell biology (online) | <ul style="list-style-type: none"> - Research experience (six weeks) - Weekly connection meetings (five weeks) - Curriculum development workshop (one week) - Research presentations | Post–research experience course: Level 2 (online) |

Benefits:

Stipend of \$10,800 per year for their successful participation in the pre– and post–research experience professional development course and the six-week lab experience

10 credit hours of graduate work per year

On-campus **housing** for participants who live more than a one-hour drive away (limited housing available)

Child care supplements of \$400 for eligible teachers

Travel stipends for those who need financial assistance to travel to and from Salt Lake City and their home for the six-week research experience (only available to participants who stay in on-campus housing)

Opportunity to apply and **attend a regional or national conference** to present their finished work (all conference expenses and travel will be paid for by the program)

Mentorship, improved **research skills**, and an increased understanding of **science, cancer research, and biomedical career options**

Development of innovative curriculum materials in accordance with the Next Generation Science Standards (NGSS)

Expectations:

Participants must commit 40 hours per week to program activities during their six-week-long individual research experience (lab experience, workshops, and meetings).

Participants must attend all pre– and post–research experience online meetings and workshops.

Participants must complete the pre– and post–research experience online professional development course.

Participants will prepare and present a research poster that summarizes their six-week research experience.

Participants will be expected to develop innovative lesson plans based on their research experience in support from the professional development program.

Applications must include the following:

- Completion of online application form
- One-page, single-spaced personal statement describing your interest in developing innovative science curricula; commitment to encouraging students of all backgrounds to pursue science, and, in particular, careers in biomedical research; interest in this particular program; and qualities and experiences that have prepared you to participate in this program
- Principal letter of support
- Application conditions and certification

Questions?

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