


NCI YES R25 Session

CABTRAC 2025



NCI YES R25 Program
RFA-CA-24-026

(March 31, 2025 Update)

- The overarching goal of this R25 program is to encourage individuals who have not had substantial biomedical research experience, or who have the potential to significantly benefit from additional biomedical research experience to pursue further studies or careers in research.

NCI YES R25 Program

- Program Focus:
 - Support research educational activities that complement other formal training programs in the mission areas of the NIH Institutes and Centers.
 - Develop holistic approaches that have sustained impact on student retention in biomedical research.
 - Encouraged to engage in interdisciplinary approaches to cancer and cancer health disparities research, including collaborative efforts within the YES community.

NCI YES R25 Program

- Participants: 6-12th grade and undergraduate students, 6-12th grade teachers and undergraduate faculty.
- Budget: \$400,000/yr for 5 years
- Program Components:
 - Research Experiences
 - Engage students in cancer research experiences (individual mentored for 9-12th and undergraduate)
 - Enhance research and career skills
 - Curriculum or Methods Development
 - Develop educational tools to enhance student research experiences
 - Teacher participants develop novel science teaching approaches based on research experience
 - Outreach
 - Engage families and communities to support students in research experiences
 - Enhance general health science education and disseminate research findings

NCI YES R25 Session

- Three-minute program presentations
 - **Dr. Joyce Solheim**, University of Nebraska Fred & Pamela Buffett Cancer Center
 - **Dr. Megan Mekinda**, University of Chicago Medicine Comprehensive Cancer Center
 - **Dr. Eduardo Davila**, University of Colorado Cancer Center
- Panel discussion
 - Above presenters plus:
 - **Dr. Jennifer Gillette**, University of New Mexico Comprehensive Cancer Center
 - **Dr. Sunita Chaudhary**, Rutgers Cancer Institute

YES! Youth Enjoy Science

Fred & Pamela Buffett Cancer Center
University of Nebraska Medical Center (UNMC)

- First funded in 2017, our YES Program encourages partnerships among biomedical scientists, youth, science educators, and community members to increase the number of cancer research and healthcare professionals.
- >80% of high school graduates who completed internships have become college science majors
- >80% of undergraduate participants who have finished internships have pursued a graduate degree in science or a medical degree



UNMC

COLLEGE OF PUBLIC HEALTH

MUNROE-MEYER INSTITUTE

EPPLEY INSTITUTE FOR RESEARCH IN CANCER AND ALLIED DISEASES

UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE

UNIVERSITY OF NEBRASKA OMAHA BIOLOGY DEPARTMENT

- IRESEARCH
- Science/Tech/Engineering/Art/Medicine (STEAM) Camp

Middle school

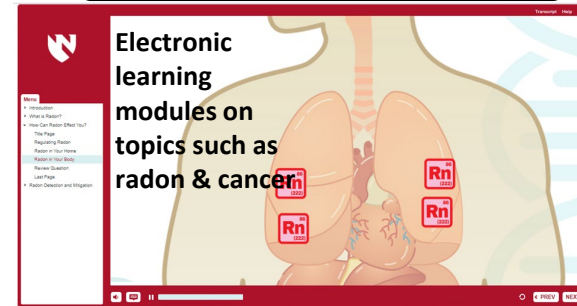
High school

- Science/Tech/Engineering/Art/Medicine (STEAM) Club
- Weeklong Institute for Students in High School (WISH)
- Research Internships

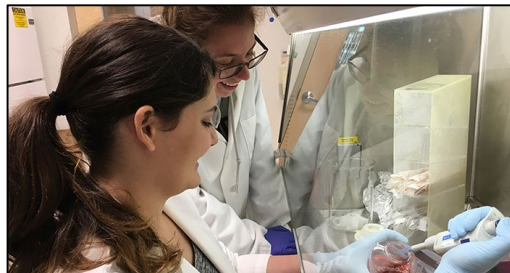
Research Internships

Under-graduates

Curriculum Development



Community Engagement



Teacher Workshops

CHICAGO EYES ON CANCER



At a glance:

Funded 2017, Renewed 2024
R25 CA221767 (Dolan/Mekinda)

2-year research training and career exploration program for high school and college students

Yearlong STEM Education Fellowship for high school science teachers

Serving Chicago and surrounding communities

30 participants/year; 109 to date

- 59 high school
- 36 college
- 14 HS teachers

96% of student alumni remain committed to careers in STEM; >30% are pursuing a cancer specialization

University of Colorado Anschutz Medical Campus Comprehensive Cancer Center

The
START
Program

Students and Teachers **A**chieving Cancer **R**esearch Experiences **T**ogether

MPI: Eduardo Davila, PhD, Meredith Tennis, PhD, Aimee Bernard, PhD

FUNDED: 8/1/2025

Vision:

To transform our community by enabling students to envision themselves as the next generation of scientific leaders and pursue advanced biomedical careers while also increasing the local community's understanding of cancer research and prevention.

Participants:



AIM 1

Engage secondary students in cancer biology science experiences and stimulate their interest in scientific research as a career path

- **7th-10th graders**
- 1 wk. Summer Cancer Camps
- Lunch and snacks

- **11th-12th graders**
- 7 wks. Summer Mentored Research Experience
- 1 Teacher : 2 students
- Stipend (\$5,500/yr x 2/yr)
- Receive college credit
- Year-round monthly cancer education

- **Lab Personnel \$1,500**
- **PI Lab: \$3,000**

AIM 2

Involve science teachers in mentored cancer biology research experiences, professional development, and biomedical science curricula

- 8 wks. Summer Mentored Research Experience
- Bioscience Education
- Professional Development
- Stipend (\$8,500/yr x 2 yrs)
- Receive graduate credit
- Support towards Career and Technical Education (CTE) certification
- START Teacher Network
- Bioscience Lending Library
- Portal to the Public Workshops

AIM 3

Provide neighboring communities with opportunities to learn about cancer research, prevention, and disparities through interactions with AMC scientists

- Saturday Community Outreach Events
- Quarterly
- Interactions with AMC scientists
- Local teachers facilitate workshops
- Aim 1 students invite family and friends to learning experiences
- Engage the community in:
 - Cancer
 - Research
 - Prevention