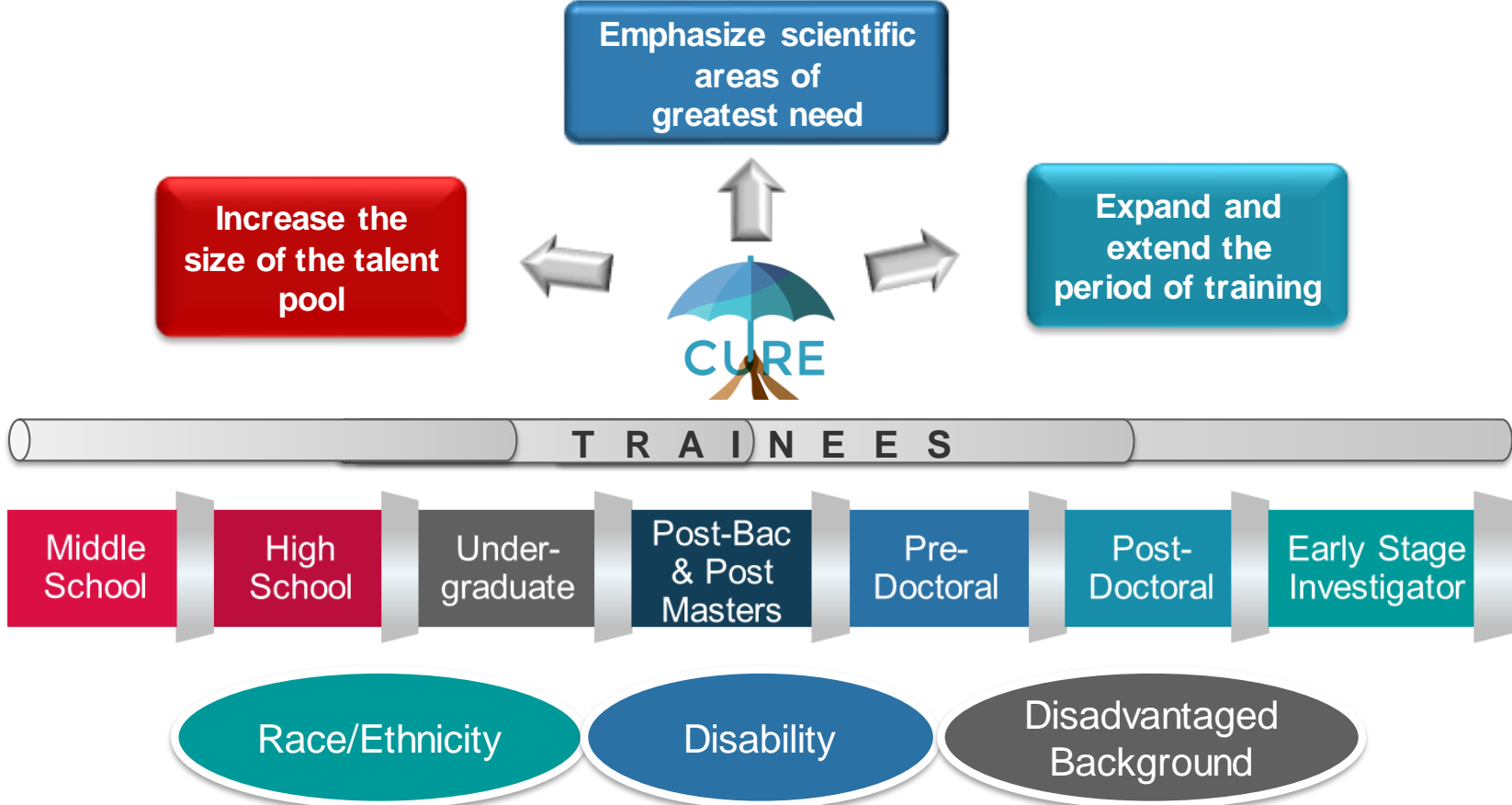


New RFA Issuance of NCI Youth Enjoy Science (YES) Research Education Program (R25)

*Alison Lin, PhD
NCI Center to Reduce Cancer Health Disparities*

Continuing Umbrella of Research Experiences (CURE)



Early Intervention Strategies within CURE

P30 CURE Supplements

- Supplement to the NCI-Designated Cancer Centers
- For high school and undergraduate students
- Engage, not just expose: two-year commitment of participants (at least 3 months per year)
- Holistic approach of the CURE: encourages support activities for students



R25 Youth Enjoy Science (YES)

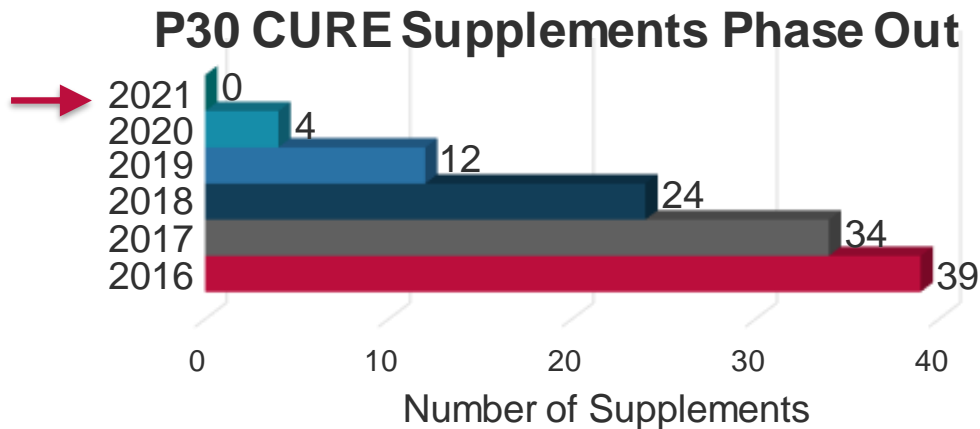
- Open to all institutions
- For middle school, high school and undergraduate students, their teachers and faculty
- Inspire interest in biomedical sciences and cancer research
- Help envision cancer research as a career path
- Strengthen practical research and career skills

Credit: COH

Credit: HCI

YES goals will remain the same in the RFA issuance

From P30 CURE Supplements to R25 YES



of P30S in
2016

39

P30S Applied
to YES to Date

28

P30S Awarded
YES to Date

12

Total Awarded
YES to Date

16

R25 YES Requires Three Activities

Research Experience

- Individual, mentored research experience for high school students and more senior
- **Strong mentoring support**

Curriculum / Methods

- Education tools for students
- Teacher/faculty participants develop activities to bring back to classroom

Outreach

- To students:
 - Introduce middle school students to cancer research in organized and systematic fashion
 - Increase awareness of the YES and facilitate recruitment
 - Enhance understanding of significance of Research Experiences
 - Strengthen career skills
- For students:
 - **Meaningfully engage families, teachers, and communities**
- By students:
 - Education and dissemination of cancer-related information to family and community

YES program requirements will remain the same in the RFA issuance

R25 YES Evaluation

Activity	Evaluation
Research Experiences	<ul style="list-style-type: none"> ▪ Number and demographics of students ▪ Interest in cancer research ▪ Academic progress (graduation) ▪ Career progress (continuation in cancer and biomedical research fields; continuation in CURE)
Curriculum or Methods Development	<ul style="list-style-type: none"> ▪ Number and effectiveness of education tools, activities, and/or curricula developed and implemented ▪ Number of teacher/faculty participants
Outreach	<ul style="list-style-type: none"> ▪ Middle school student tracking (see above) ▪ Number and effectiveness of activities that: <ul style="list-style-type: none"> ▪ Promote student skills, knowledge and well being ▪ Support student participation in YES ▪ Are conducted by the students in education and dissemination of cancer research findings
Collaboration	<ul style="list-style-type: none"> ▪ Number and effectiveness of collaborative tools or activities developed and implemented

Original
FOA

New in
RFA
issuance

PAR-17-059: NCI Youth Enjoy Science (R25) FY 2017-19

- Posted: November 25, 2016
- First application receipt: January 25, 2017
- Expired: September 26, 2019

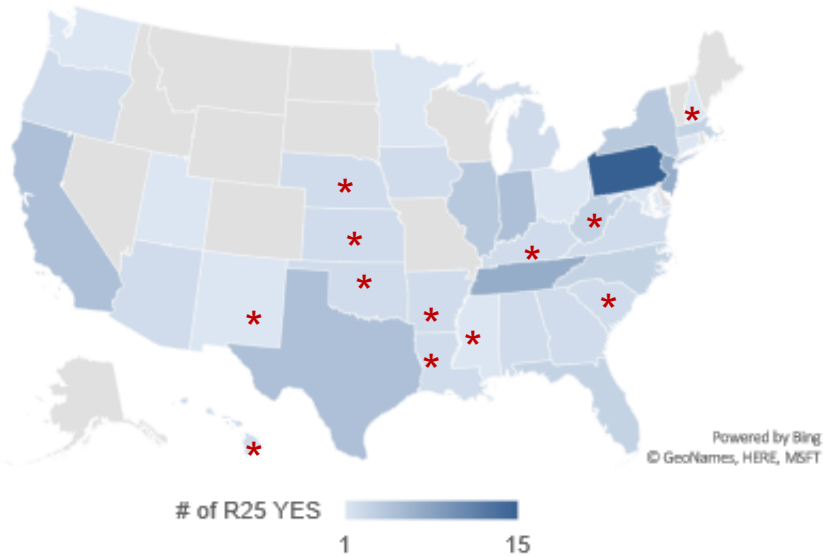
Applications		Awarded	Not Awarded		Total
FY 2018	Score	10-25	25-65	ND	31
	Number	5	20	6	
FY 2019	Score	10-20	23-70	ND	32
	Number	6	22	4	
FY 2020	Score	13-14	19-51	ND	40
	Number	5	27	8	

Budget per award per year:
Up to \$500k DC
(\$540k TC)

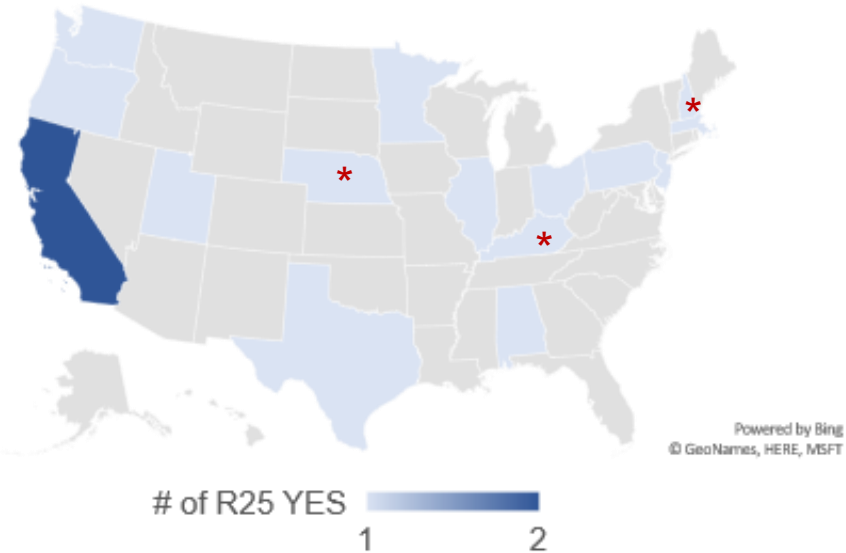
Each award: up to 5 years

R25 YES Application and Awards Geographic Distribution

R25 YES Applications FY 2017-19

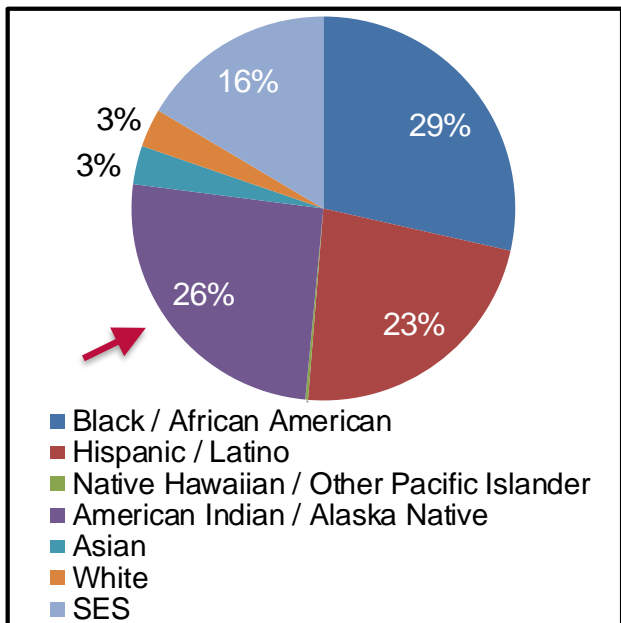


R25 YES Awards (16 Total)

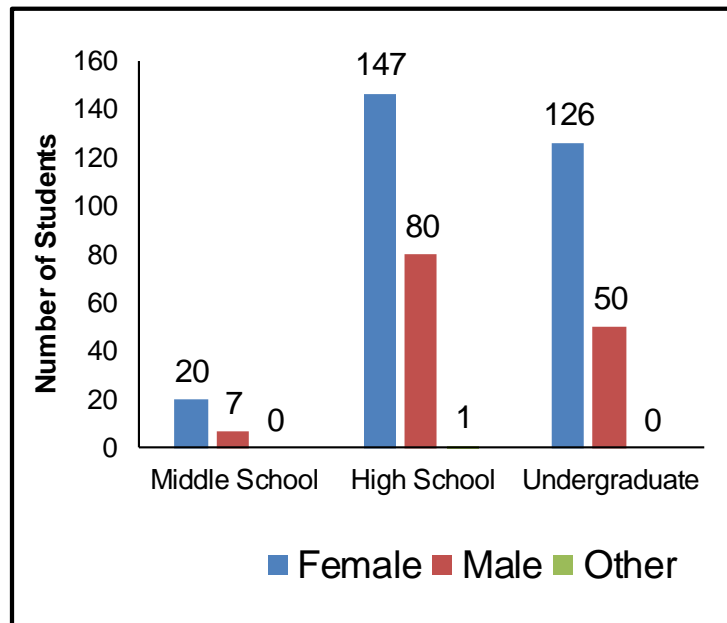


* Institutional Development Award (IDeA)-eligible states

YES Outcome FY 2018-19 (8 Programs): Participant Recruitment



n = 431
students

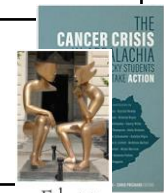
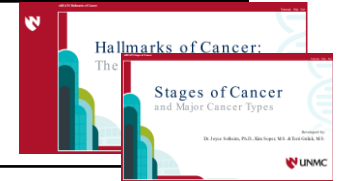


Middle School Teachers	High School Teachers	Undergraduate Faculty
1	24	9

In high demand (5 programs reported):
17% student participant selection rate

YES Outcome FY 2018-19 (8 Programs): Other Metrics

Activity	Outcomes
Research Experiences	<ul style="list-style-type: none"> ▪ All matched with individual research mentors ▪ 5 programs have structured additional mentor and/or mentor training ▪ All students present posters
Curriculum or Methods Development	<ul style="list-style-type: none"> ▪ All have orientation, courses and seminars ▪ 5 programs have teacher-focused programming ▪ 8 modules on cancer knowledge
Outreach	<ul style="list-style-type: none"> ▪ 4 programs have outreach to middle school students ▪ All have student support activities ▪ 3 programs have specific wellness activities ▪ All have family and community engagement activities
Publications	<ul style="list-style-type: none"> ▪ 3 manuscripts ▪ 1 book ▪ 6 podcasts



Ethnicity & Disease

New in RFA Issuance: Promoting Collaboration Efforts

Biweekly PI Meetings



- Pool resources
- Share expertise and developed modules
- Maximize NCI investment

Virtual Hub: YES HQ



Welcome to YES Headquarters!

YES HQ is a place for people participating in the R25 YES program to get together and make connections, grow collaborations, share achievements and learn from each other. This space is still under construction, but we're looking forward to creating a lively and thriving HQ in collaboration with you.

R25 YES Collaborates with Other NIH Pre-College Program

- The NIH Scientific Management Review Board's ***Pre-college Engagement in Biomedical Science*** report to the NIH OD recommends that NIH:
 - Support pre-college STEM programs
 - Target early learners
 - Target low SES and minority communities
 - Maximize currently available funding through better coordination of NIH pre-college workforce diversity programs
- Currently only two NIH programs support pre-college workforce diversity programs: **NCI R25 YES** and **NIGMS R25 SEPA (Science Education Partnership Awards)**

YES – SEPA Synergy:

- Hold concurrent PI meetings so investigators can network and learn from each other
- PDs present at each other's meetings
- Dr. Sharpless was invited to deliver keynote speech at the 2018 NIH SciEd Meeting (SEPA PI meeting)
- Currently 5/16 YES PIs are also SEPA PIs

R25 YES RFA Issuance Budget Request Summary

- **Issue as 3-year RFA**
- Projection based on applications and awards during initial FOA period:
 - ~ 40 applications per year
 - 4 new awards per year, 12 new awards total
- Budget per award: up to **\$432K TC (up to \$400K DC) per year** for up to 5 years
- **Amount of Set-Aside for 01 year (FY 2022): \$1,728,000 (4 Awards)**
- Estimated cost for total project period (FY 2022-26):
 - New awards (Type 1): up to \$5,184,000
 - Non-competing awards (Type 5): up to \$20,736,000
- **Total cost for entire project period (Type 1 and Type 5): \$25,920,000**



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