

# Planning Your Next Step – NCI Funding and Training Opportunities

*Center to Reduce Cancer Health Disparities (CRCHD)*  
*Division of Cancer Epidemiology & Genetics (DCEG)*



“The best way to predict the future  
is to create it.”

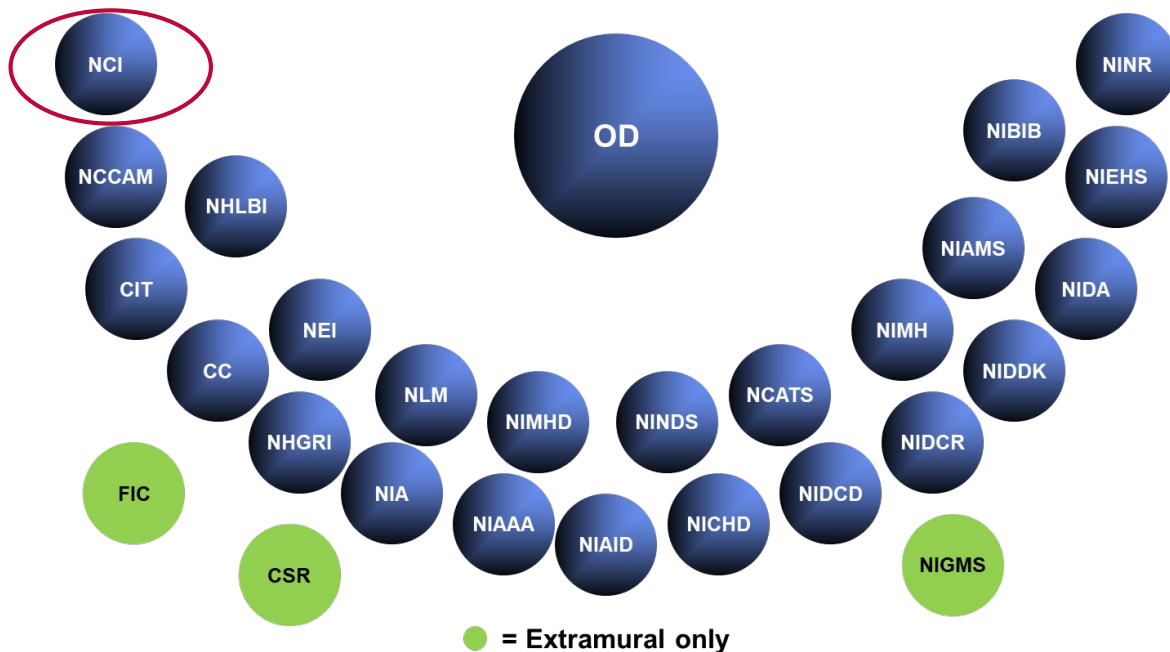
- *Abraham Lincoln*

# Outline

1. **Overview**
2. *Extramural Opportunities: the CURE Pipeline*
3. *Intramural Programs at NCI*
4. *Questions?*



## National Institutes of Health Has 27 Institutes and Centers



# National Cancer Institute (NCI)

**Website:** <https://www.cancer.gov/about-nci>

## WHAT WE DO

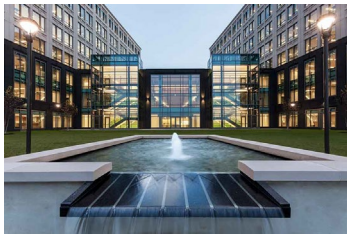


## Organization:

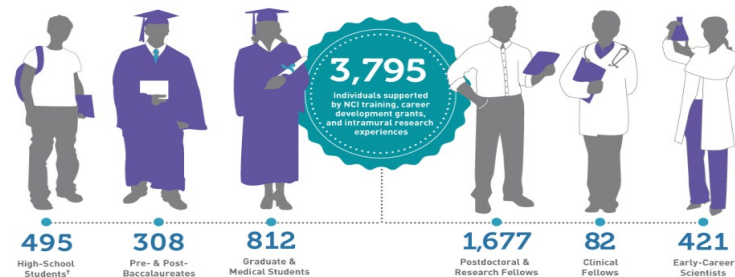
- Intramural: conduct research at NCI
- Extramural: support research across the nation

## Priorities:

- Research: cancer health disparities; data science; immunotherapy; clinical trials; etc.
- Training



FY 2017



# NCI Center to Reduce Cancer Health Disparities (CRCHD)

## Diversity Training



## Partnerships

- Partnerships to Advance Cancer Health Equity (PACHE)

## Cancer Health Disparities Research

- Basic research
- Translational research

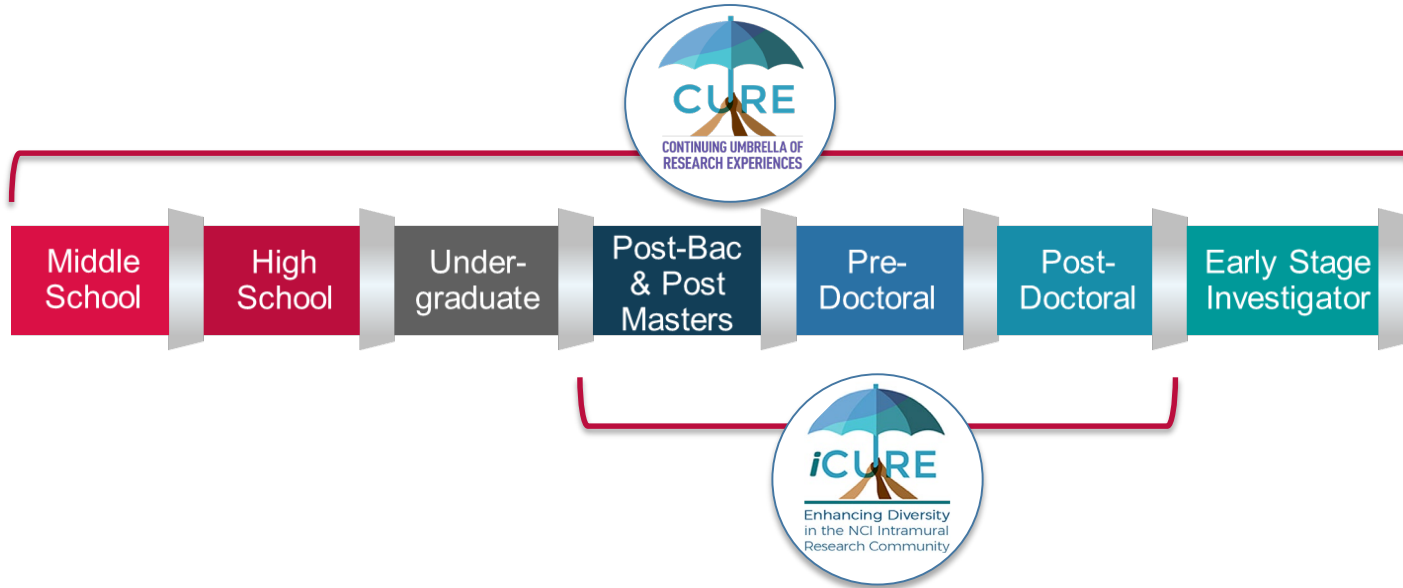
## Networks

- Geographic Management of Cancer Health Disparities Program (GMAP)
- National Outreach Network (NON)



# NCI Diversity-Focused Training Programs

## Extramural: Continuing Umbrella of Research Experiences (CURE)



- Support research experiences of **underrepresented** students and scientists
- Promote professional and career development
- Help the trainees achieve research independence

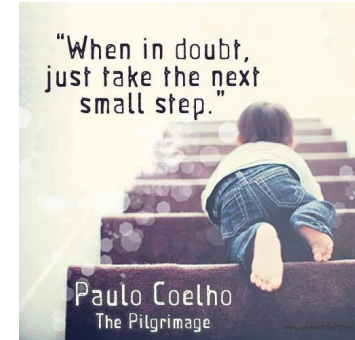
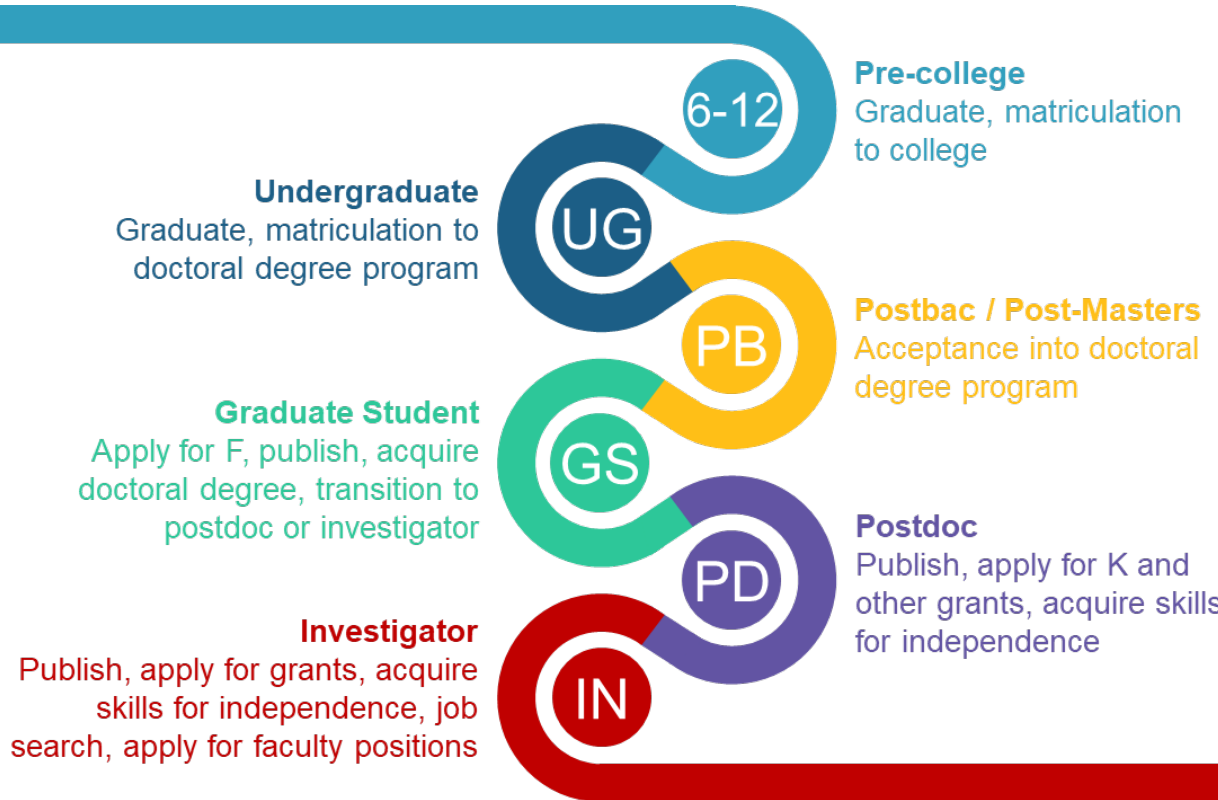
## Intramural: Intramural Continuing Umbrella of Research Experiences (iCURE)

# More Than a Pipeline: CURE and iCURE Provide an Ecosystem of Support





# CURE and iCURE Sets Clear Goals for Career Advancement



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# Extramural: Continuing Umbrella of Research Experiences (CURE)



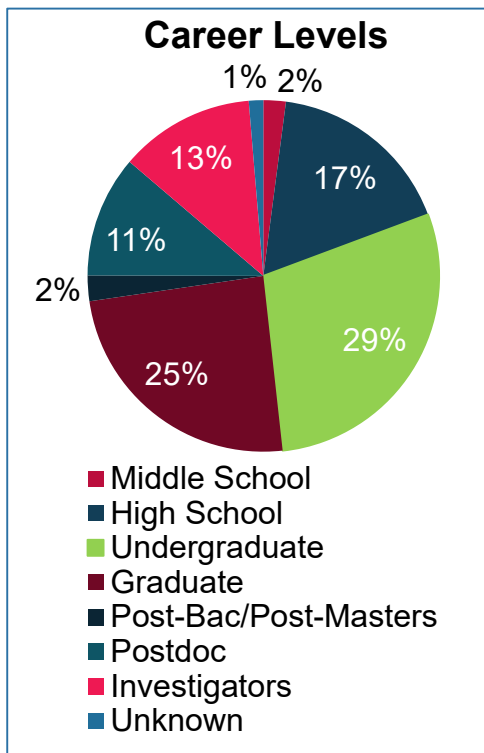
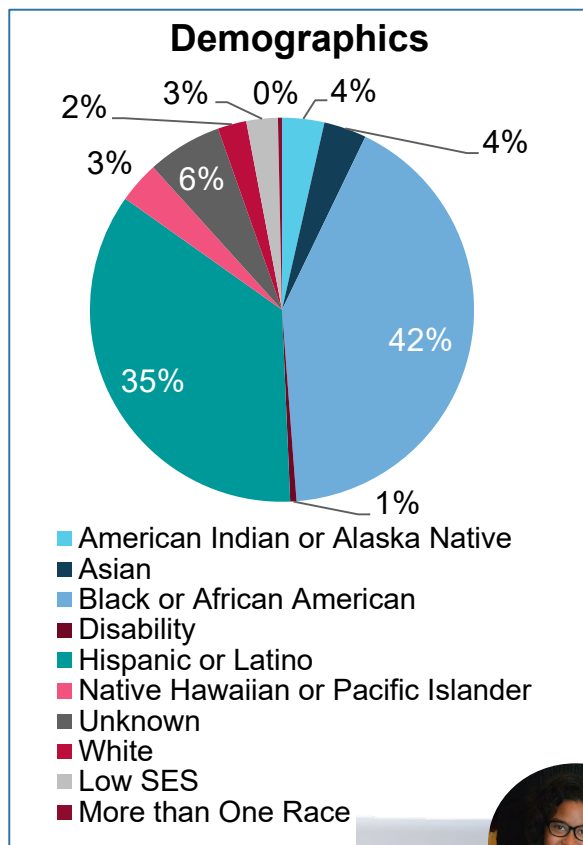
**Focused on enhancing diversity:** Trainees must be US citizen, non-citizen nationals or permanent resident

Race/Ethnicity

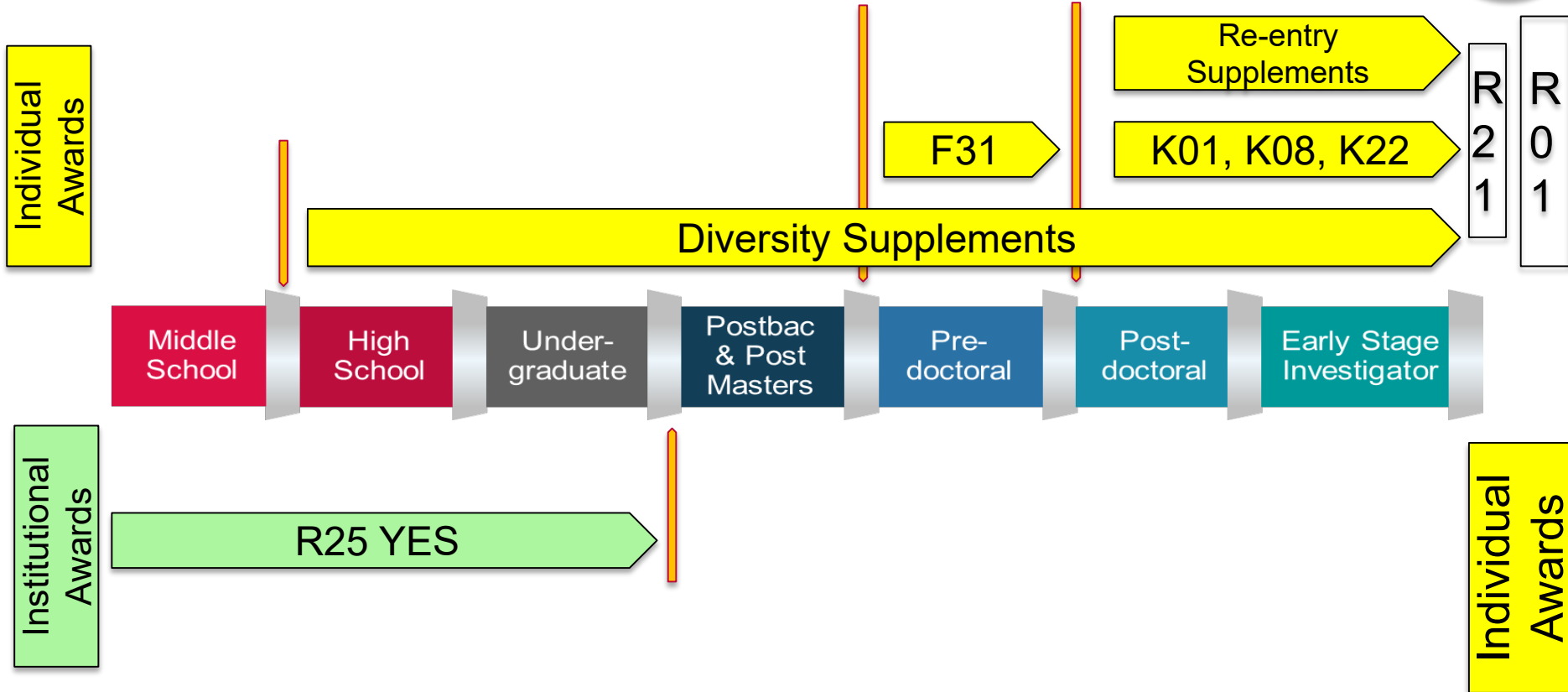
Disability

Disadvantaged  
Background

# CURE Trainees (2001-2018, n = 4,753) are Diverse

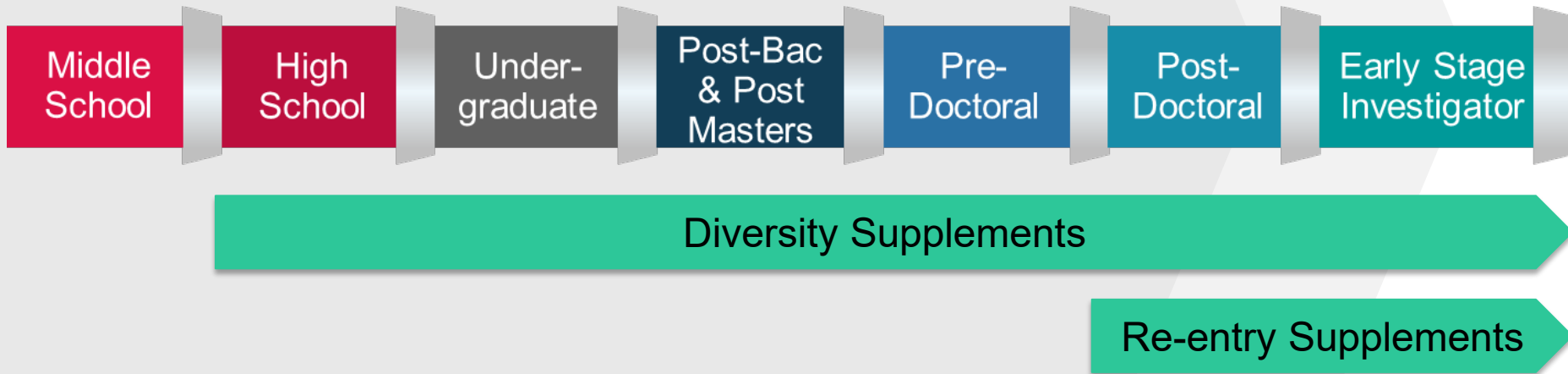


# CURE Funding Mechanisms





# Diversity and Re-entry Supplements



# Supplements within the CURE: Diversity and Re-Entry



- Provide additional funding to currently active NIH grants (parent grants) to support research experiences of trainees
- Parent grant must have **at least two years** of active status left at the time of supplement application
- Application receipt: **Oct 1 – Dec 1** and **Feb 1 – Mar 31**
- A **bridge** for candidates to progress to the next academic/career level
- Any questions -

Contact

Dr. Samson Gebreab

[CUREsupplements@nih.gov](mailto:CUREsupplements@nih.gov)



# Research Supplements to Promote Diversity in Health-Related Research (PA-21-071, Diversity Supplements)



- Aims to support candidates from underrepresented populations: race/ethnicity, disability, disadvantaged background
- Allowed one diversity supplement at each career level
- <https://grants.nih.gov/grants/guide/pa-files/PA-21-071.html>
- Diversity Supplements: <http://www.cancer.gov/about-nci/organization/crchd/diversity-training/cure/DSGuidelines>



# Diversity Supplements: Special Eligibility Criteria for Graduate Students and Postdoctoral Fellows



- **No concurrent PHS support for graduate student or postdoctoral fellow candidate at the time of application:**
  - Cannot be supported by parent grant
  - If coming off of institutional training grant, need letter from institution
- **AFTER application submission:**
  - Can be supported by the parent grant at the recipient's own risk, pending funding decision of supplement application

# Research Supplements to Promote Re-Entry into Biomedical and Behavioral Research Careers (PA-18-592, Re-Entry Supplements)



- Aims to support candidates from all populations
- Candidate must have been on hiatus from research for 1-8 years; must be postdoctoral fellow or faculty before hiatus
- <https://grants.nih.gov/grants/guide/pa-files/PA-18-592.html>
- <https://www.cancer.gov/about-nci/organization/crchd/diversity-training/cure/reentry-supplements-guidelines-20>

# What Do We Look for in a Supplement Application?

Candidate	Mentoring and Career Development Plan	Research Plan
<ul style="list-style-type: none"><li>Motivation</li><li>Accomplishments</li><li>Career goals</li><li><b>Eligibility statement</b></li></ul>	<ul style="list-style-type: none"><li>Scientific proficiency and mentoring expertise of mentor(s)</li><li>Defined role(s) and commitment of mentor(s)</li><li>Training of career skills</li><li>Clear benchmarks</li><li>Candidate-specific plans</li></ul>	<ul style="list-style-type: none"><li><b>Relevancy to Parent Grant project</b></li><li>Scientific impact on Parent Grant project</li><li>Research design and feasibility</li><li>Alignment with candidate's career goals</li></ul>

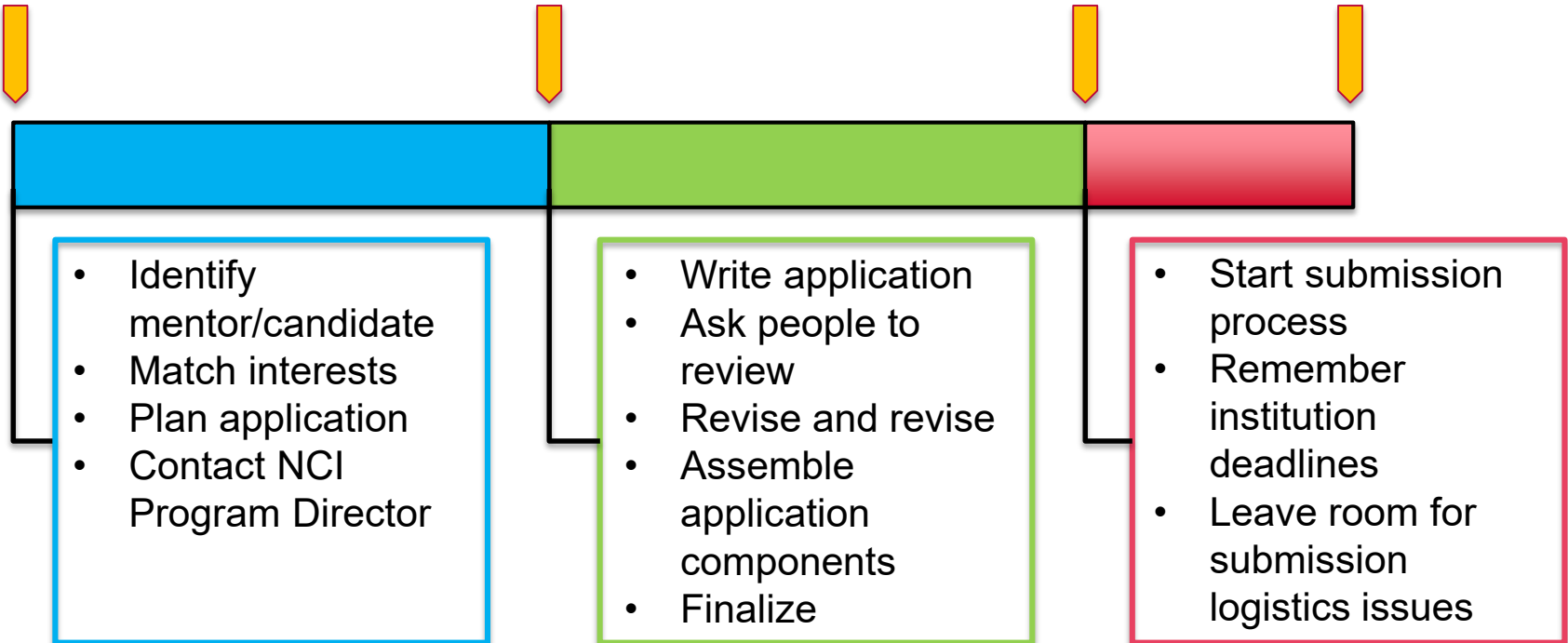
# Suggested Timeline for Preparing a Supplement Application

5 Months  
Prior

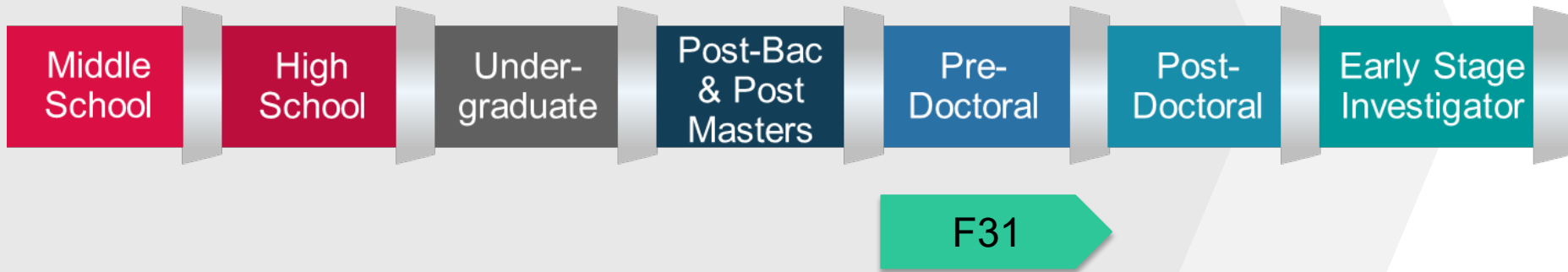
3 Months  
Prior

1 Month  
Prior

Submission  
Deadline



# Ruth L. Kirschstein NRSA Individual Predoctoral Fellowship to Promote Diversity in Health- Related Research (F31)



## F31 Diversity Predoctoral Fellowship ([PA-21-052](#))

- **Objective:** To increase biomedical workforce diversity by supporting mentored research training leading to a PhD or combined dual doctoral degrees.
- **Benefits**
  - Individualized, mentored research training.
  - Experience conducting impactful research as well as presenting and publishing research findings as a first author.
  - Development of a stronger grants skillset which improves competitiveness for NIH funding.
  - Student is the PI of the F31.
- Support is provided for up to 5 (Ph.D.) or 6 years (combined degrees, ex.MD/PhD)

# F31 Application and Contact

Receipt Cycle	Application Receipt Date	Initial Review	Council Review	Earliest Possible Start Date*
1	April 8	June/July	September/ October	December
2	August 8	October/ November	January/ February	April
3	December 8	February/ March	May/June	July

*\* Start dates are determined by the availability of NCI funds and may not occur until well after the earliest possible start date.*

## Contact

Dr. Anthony DiBello  
[anthony.dibello@nih.gov](mailto:anthony.dibello@nih.gov)



# 5 Important Elements of an F31 Diversity Application

1. Fellowship Applicant	2. Sponsors, Collaborators, and Consultants	3. Research Training Plan	4. Training Potential	5. Institutional Environment & Commitment to Training
<ul style="list-style-type: none"><li>• Strong academic record</li><li>• Some research experience</li><li>• Excellent letters of recommendation</li><li>• <b>Eligibility letter</b></li></ul>	<ul style="list-style-type: none"><li>• Sponsor is active, funded investigator in area of proposed research</li><li>• Must devote time and commitment to trainees' success</li><li>• Should have a history of mentoring success</li></ul>	<ul style="list-style-type: none"><li>• Overall scientific impact</li><li>• Specific Aims clearly described</li><li>• Objective, Approach, Innovation, Significance</li></ul>	<ul style="list-style-type: none"><li>• Highlight skills for Independent Career</li><li>• Describe activities that support future career as an independent researcher</li></ul>	<ul style="list-style-type: none"><li>• Explain selection of academic institution</li><li>• Discuss how features of scientific environment will enhance success</li></ul>



# Suggested Timeline for Preparing an F31 Diversity Application

8-6 Months  
Prior



4-3 Months  
Prior



1 Month  
Prior



Submission  
Deadline



- Notify NCI PD of intent to apply
- Become familiar with the Program Announcement & Instruction requirements
- Begin 1<sup>st</sup> draft of application working with Sponsor

- Ask grant writing experts to review 2<sup>nd</sup> draft of application
- Focus on required sections of the F31 application
- Update NCI PD of progress
- Review, Edit, Revise!!

- Final draft of application
- Refer to PA and Instructions for submission guidance
- Utilize Institutional resources in submission process



# Career Development K Awards to Promote Diversity



*\*Investigators in tenure-track faculty positions are not eligible*

# NCI Career Development Awards (K Awards)

- **Objectives:**

- Provide protected time and salary support for 3-5 years of intensive training and research
- Promote career development activities to enhance candidate's research capabilities
- Expectation is that awardees will be prepared to lead independent research programs and become competitive for NIH research project grants

- **Requirements:**

- An academically strong candidate with prior research experience and publications
- A well-defined research project with scientific impact and structured training activities
- Experienced, committed, & funded mentor/mentoring team (advisory committee for K22)
- Institutional commitment to candidate's career development and 75% protected time

# NCI K Awards Supported by CRCHD

Upcoming Application Due dates: **February 12**

K Award	Mentored or Non-Mentored	Research Focus	Salary up to	Max R&D Support	Duration
<b>K01</b>	Mentored	All Cancer-Related Research	\$100k	\$30k	3-5 years
<b>K22</b>	Non-Mentored			\$50k	3 years
<b>K08</b>	Mentored	Clinical, Translational & Patient-Oriented Research	\$189k	\$50k	3-5 years

## Contact

Dr. Mulualem Tilahun

[mulualem.tilahun@nih.gov](mailto:mulualem.tilahun@nih.gov)



# FOAs: Clinical Trial Allowed vs No Independent Clinical Trials

- FOAs

- NCI **Mentored** Research Scientist Development Award to Promote Diversity (K01)

PAR-18-364: <https://grants.nih.gov/grants/guide/pa-files/PAR-18-364.html>

PAR-18-365: <https://grants.nih.gov/grants/guide/pa-files/PAR-18-365.html>

- NCI **Mentored** Clinical Scientist Research Career Development Award to Promote Diversity (K08)

PAR-18-336: <https://grants.nih.gov/grants/guide/pa-files/PAR-18-336.html>

PAR-18-337: <https://grants.nih.gov/grants/guide/pa-files/PAR-18-337.html>

- NCI **Transition** Career Development Award to Promote Diversity (K22)

PAR-18-366: <https://grants.nih.gov/grants/guide/pa-files/PAR-18-366.html>

PAR-18-367: <https://grants.nih.gov/grants/guide/pa-files/PAR-18-367.html>

## Eligibility Criteria: NCI Diversity K01 and K08

- Research, clinical or health-professional doctoral degree or equivalent
- Clinical doctorate or PhD in clinical disciplines (K08)
- Full-time appointment at an academic institution at the time of the award
- ≤ 5 years of total postdoctoral training at the time of application
- The K08 award may be used by candidates with different levels of prior research training and at different stages in their mentored career development
- No individual NIH K awards or other pending PHS K applications or peer-reviewed research grants. Former PIs of R03, R21, R36 or SBIR remain eligible

# Eligibility Criteria: NCI Diversity K22

- Clinical, research doctorate or combined degree
- Affiliation with a domestic extramural or Federal institution at the time of submission or resubmission
- $\leq 8$  years of mentored, non-independent postgraduate training after terminal degree/clinical residency at time of application
- No tenure-track faculty position or accepted offer
- Applicants are expected to submit an R01 application by the end of year 2 of the award
- No individual NIH K awards or other pending PHS K applications or peer-reviewed research grants (except R03, R21)

# What Do We Look for in a Career Development Application?

Candidate	Career Development and Mentoring Plan	Research Plan
<ul style="list-style-type: none"><li>• Excellent training &amp; research experience</li><li>• Highly productive (peer-reviewed publication record)</li><li>• Clear career goals</li><li>• <b>Eligibility letter</b></li></ul>	<ul style="list-style-type: none"><li>• Structured career development plan</li><li>• Matched expertise &amp; strong mentoring track record of mentor(s)</li><li>• Strong reference letters</li><li>• Strong environment &amp; institutional support</li></ul>	<ul style="list-style-type: none"><li>• Good training vehicle to establish applicant's niche</li><li>• Sound approach (appropriate research design and feasible)</li><li>• Well written with good alignment with applicant's career goals</li></ul>



# Core Review Criteria (equal weighting)

## 1. Candidate

- NIH biosketch, personal statements, biography, reference letters

## 2. Career Development Plan

- Specificity about specific courses, training activities, meetings with mentors/consultants

## 3. Research Plan

- Feasible project and timeline, research that is a vehicle to utilize proposed training
- Incorporation of alternative strategies, potential pitfalls, data analyses

## 4. Mentors\*, Consultants, and Collaborators

- NIH biosketch, letters of support, research expertise, research project funding
- **Mentored**
  - **K01, K08:**
- **Non-mentored**
  - **K22:**

## 5. Environment and Institutional Commitment to the Candidate

- Commitment to candidate's career development, 75% protected time for K-related activities

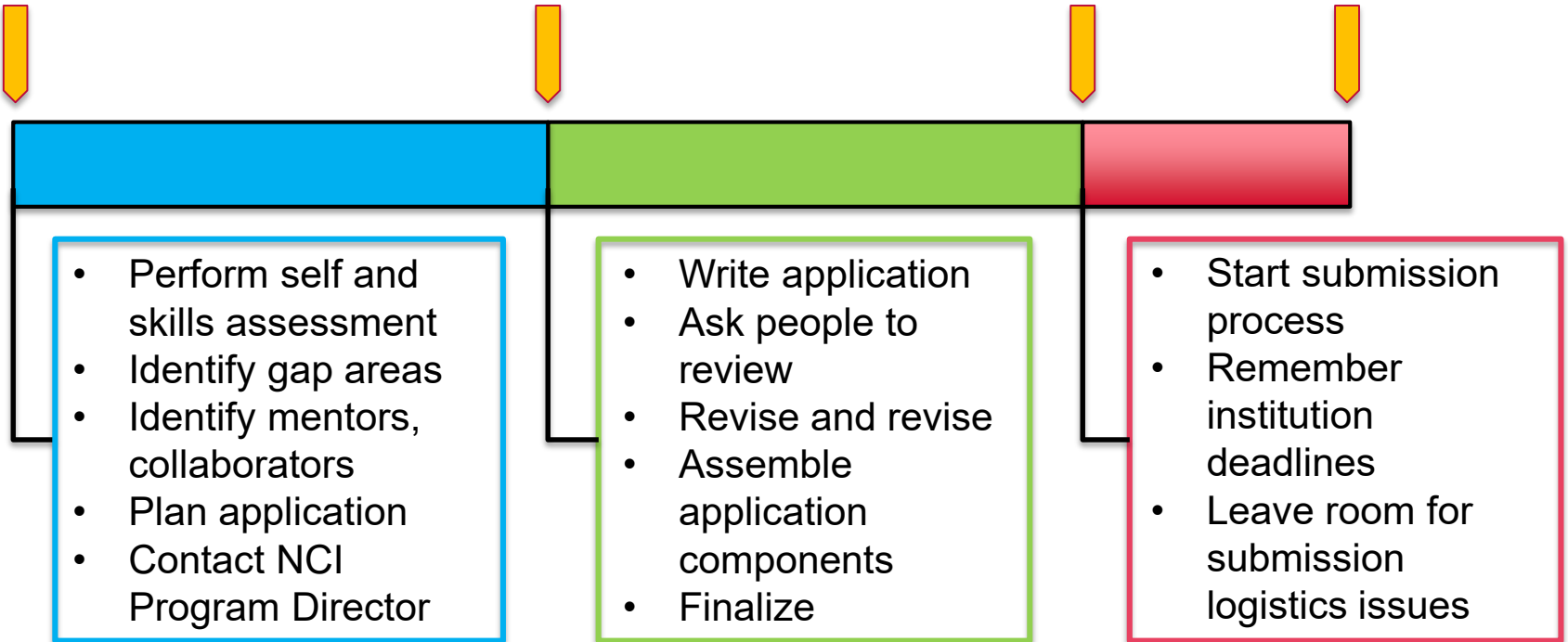
# Suggested Timeline for Preparing a K-Award Application

6-9 Months  
Prior

3-6 Months  
Prior

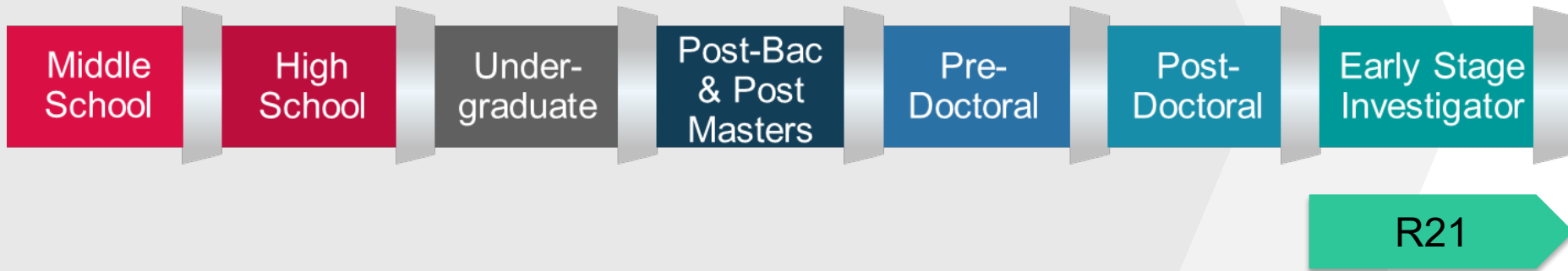
1 Month  
Prior

Submission  
Deadline





# Exploratory Grant Award to Promote Workforce Diversity in Basic Cancer Research (R21 Clinical Trial Not Allowed)



# R21 Diversity, [PAR-18-731](#): *FOA Reissuance Expected Soon*

**Eligibility:** Early Stage Investigators or New Investigators; **cannot have previous R01 or grants over \$175k direct cost per year.**

**Goal:** Support eligible researchers to develop preliminary data for competitive R01 proposals.

**Research focus:** Basic biology of cancer

**Budget:** Direct Cost for 2 years  $\leq$  \$275k,  $\leq$  \$200k per year

**Limit:** An individual may receive no more than 2 awards including past and future iterations of this FOA.

**Expected Due dates:** **June 19**, November 19

## Contact

Dr. Mauricio Rangel-Gomez  
[mauricio.rangel-gomez@nih.gov](mailto:mauricio.rangel-gomez@nih.gov)



# Tips for Grant Applications:

- Find NIH grants and funding information:  
<https://grants.nih.gov/grants/oer.htm>
- Visit NIH extramural diversity website:  
<https://extramural-diversity.nih.gov>
- Learn about peer review at NIH Center of Scientific Review:  
<https://public.csr.nih.gov/ApplicantResources/Pages/default.aspx>



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# Intramural NCI Programs – NCI IRP



# Intramural Continuing Umbrella of Research Experiences (iCURE) Program





# Intramural CURE (iCURE) – Research Experiences at NCI



- Mentored research experiences on **NCI campuses** in Bethesda, Shady Grove (Rockville) and Frederick, Maryland
- Supports **postbacs** (1 year), **graduate students** (2 years) and **postdocs** (3 years)
- **Applications open now: Oct 15, 2020 – Feb 5, 2021**  
<https://www.cancer.gov/about-nci/organization/crchd/diversity-training/icure>
- Centralized review and program-facilitated matches for scholars to PIs in NCI Intramural Research Program



## Contact

Dr. Jessica Calzola  
[iCURE@nih.gov](mailto:iCURE@nih.gov)



# iCURE Eligibility and Focus on Diversity

**iCURE scholars must be U.S. citizens, legal permanent residents, or non citizen nationals**

## Post-baccalaureate (Incl. Post Master's)

- Must meet both Postbac IRTA and iCURE eligibility criteria

## Graduate Students

- Must currently be enrolled in a PhD or equivalent graduate program

## Postdoctoral Fellows

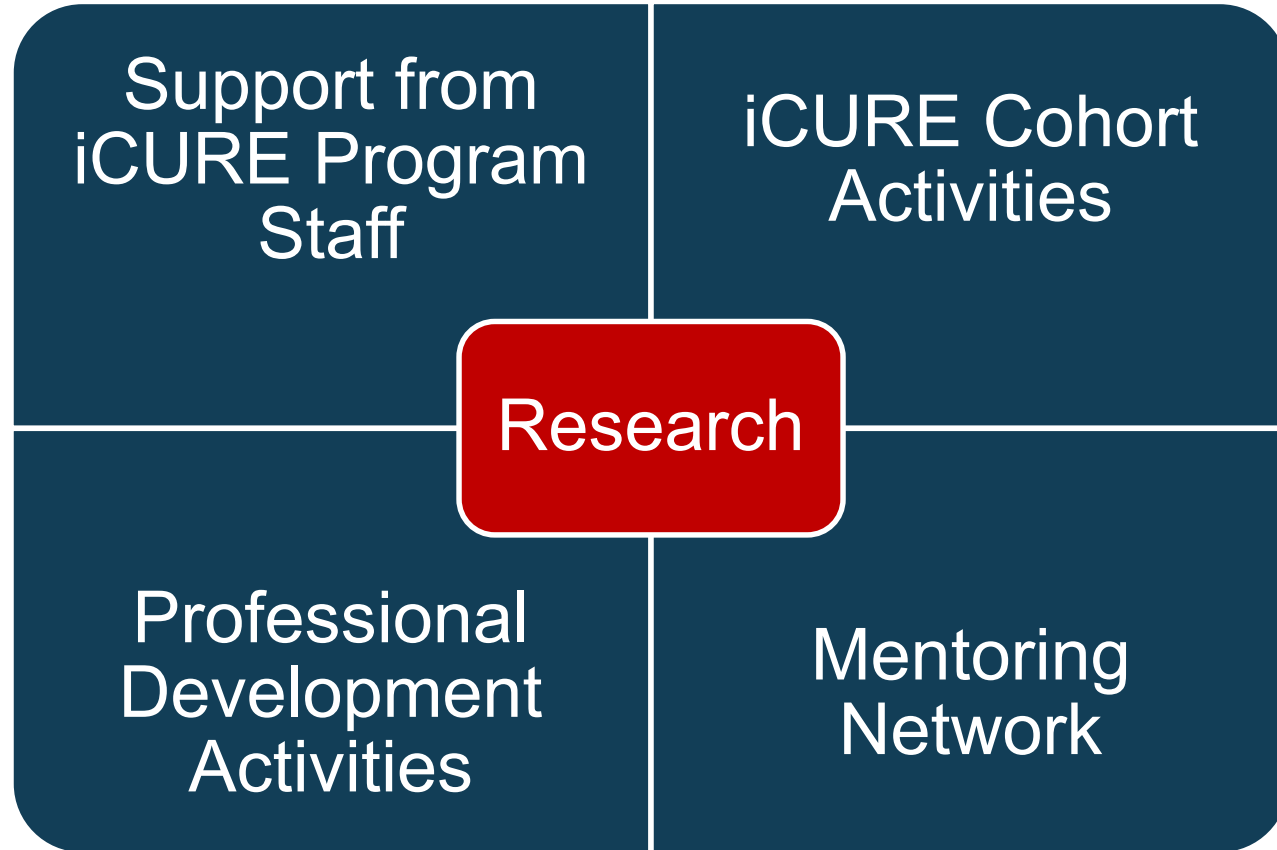
- Must have a PhD, MD, or equivalent by proposed iCURE start time
- No more than 5yrs of relevant research experience

Individuals from groups identified in NIH's Notice of Interest in Diversity ([NOT-OD-20-031](#)) as underrepresented in the biomedical, clinical, behavioral, and social sciences are particularly encouraged to apply.

## NIH Notice of Interest in Diversity

- Race and ethnicity
- Disability
- Disadvantaged background

# iCURE Program Experience



# Apply to iCURE



Applications accepted now:  
October 15, 2020 – February 5, 2021

<https://www.cancer.gov/about-nci/organization/crchd/diversity-training/icure>

[iCURE@nih.gov](mailto:iCURE@nih.gov)



Dr. Jessica  
Calzola



Dr. Eric Johnson  
Chavarria



Ms. Etaria  
Omekwe



Dr. Mark  
Sellers

Program Directors

Program Analysts

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Coming in February – PAVES 3:  
*Life of a Grant and the Early Reviewers Program*



**NATIONAL  
CANCER  
INSTITUTE**

Contact

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@NCICRCHD

<https://www.cancer.gov/about-nci/organization/crchd>

[www.cancer.gov](http://www.cancer.gov)

[www.cancer.gov/espanol](http://www.cancer.gov/espanol)