

Supporting Statement A

Intramural Continuing Umbrella of

Research Experiences (iCURE) Applications

(National Cancer Institute)

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- Emergence
- **X Existing Collection in Use**

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A. Justification

This is a request to approve an Existing Collection in Use without OMB's approval for 3 years. The new Intramural Continuing Umbrella of Research Experiences (iCURE) program supports mentored research experiences for qualified post-baccalaureate (including post masters) individuals, graduate students, and postdoctoral fellows in the multidisciplinary National Cancer Institute (NCI) intramural research environment. This information collection request is for applications and a reference letter to help evaluate the merits of the candidates and their potential match for the iCURE program.

iCURE is an extension of the highly successful NCI Center to Reduce Cancer Health Disparities' (CRCHD) Continuing Umbrella of Research Experiences (CURE) program which helps support the career progress of its scholars toward research independence, as well as fosters and sustains diversity in the biomedical research pipeline. Like the CURE program, iCURE strongly encourages the participation of individuals from underrepresented populations and is aligned with NCI's interest in diversity.

The benefit of collecting this information is to enable the selection of the best matching candidates for the iCURE program. The iCURE program aims to, 1. Enhance the diversity of the NCI Intramural Research Program (IRP), and 2. Promote the career progress of the iCURE scholars in cancer research.

A.1 Circumstances Making the Collection of Information Necessary

The iCURE program fulfills the requirements of the National Cancer Institute (NCI) training authority as established under: Section 413 (b) (3) of the Public Health Service Act, 42 USC 285a-2 (b) (3), as amended pertaining to the NCI, which states that the NCI Director, in carrying out the National Cancer Program . . . shall . . . "support appropriate programs of education and training (including continuing education and laboratory and clinical research training)". In addition, enhancing the diversity of the cancer research workforce in the nation, including in the NCI IRP, is an NCI priority.

The NCI IRP includes NCI's Center for Cancer Research (CCR) and the Division of Cancer Epidemiology and Genetics (DCEG). Together, they support scientists, physicians and clinicians who conduct basic, clinical and genomic and population-based research. The IRP provides a uniquely rich, interdisciplinary and dynamic environment in which to train the next generation of cancer researchers.

NCI is particularly interested in fostering an inclusive research environment in which all motivated and interested students and scientists can thrive. Many of the existing intramural training programs encourage applications by individuals from populations who are found to be underrepresented in biomedical research.

Despite these efforts, the actual participation by underrepresented individuals has been limited. By the end of Fiscal Year 2016, among 835 NIH IRP Senior Investigators, only 13 (1.6%) are Black, 29 (3.5%) are Hispanic and 1 (0.1%) is American Indian/Alaska Native; among 218 NIH IRP Investigators, only 6 (1.4%) are Black, 10 (4.6%) are Hispanic and 1 (0.5%) is American Indian/Alaska Native (<https://oir.nih.gov/sourcebook/personnel/irp-demographics/intramural-research-program-personnel-demographics-end-fy16>). NCI recognizes the need for transformative approaches to encourage the participation of all populations in the cancer research enterprise.

In collaboration with IRP, CRCHD launched the iCURE program, which seeks to:

1. Provide up to three years of funding support for all qualified students and scientists to conduct mentored research in the NCI IRP, and importantly
2. Build a consistent and systematic multi-level support infrastructure that encourages inclusiveness and fosters sustained interest in research within the environment of the NCI IRP.

iCURE particularly encourages the participation of students and scientists from underrepresented populations, to help achieve a demographics distribution within the NCI IRP that is reflective of our nation's demographics. This longitudinal program parallels the philosophy and design of CRCHD's extramural CURE program.

CRCHD established the CURE program in 1997 to encourage the engagement of trainees from diverse populations and foster their sustained interest in biomedical research. CURE supports funding opportunities to increase the talent pool, address strategic and scientific areas of interest, and expand and extend the period of training so that qualified candidates may be better prepared to reach research independence. Over the past 22 years, CURE has trained more than 4,000 students and scientists. Analysis of program outcomes has shown that CURE trainees from underrepresented populations have been equally successful as their majority counterparts in acquiring subsequent NIH funding.

Similar to the CURE program, the iCURE aims to not only enhance the engagement of students and scientists from various populations in the NCI IRP, but also develop their scientific competitiveness and promote their career progress in cancer research. The iCURE supports research training in the NCI IRP for eligible and qualified post-baccalaureate and post-master's individuals, graduate students, and postdoctoral fellows. An iCURE candidate will be required to commit up to three years of effort (depending on academic and career level) for each iCURE award. Candidates will have individual, mentored research experiences in an IRP laboratory. It is expected that there will be a sufficient cohort of iCURE candidates recruited each year to ensure an active and supportive iCURE peer group within the bigger context of the IRP peer network.

An iCURE award will support three years of research experiences in an IRP laboratory for postdoctoral fellow candidates, two years for graduate student candidates, and one year for post-baccalaureate candidates. During the years supported by iCURE, the candidate is expected to become familiar with the intramural environment, actively seek networking and collaboration opportunities within the IRP, identify a "best-fit" laboratory for continued research if applicable, and/or apply for one of the existing intramural training programs. At the same time, IRP investigators are expected to learn about the iCURE candidates and actively identify potential longer-term matches. After the iCURE award completes, matched candidates may continue research in their matched IRP laboratory, supported by intramural funds, either directly by an IRP investigator, or via an intramural training program. iCURE scholars will also be connected with the CURE program, which will offer extramural opportunities for their continued research career progress.

A successful iCURE scholar is motivated in pursuing cancer research and has demonstrated evidence of academic and career excellence as well as a potential ability to thrive in the NCI intramural environment. This collection of information is critical in assessing the qualifications of applicants and helping in the recruitment and selection process of iCURE.

A.2 Purpose and Use of the Information Collection

The purpose of the proposed information collection activity is to:

- Assure that prospective trainees to the iCURE program meet basic eligibility requirements;
- Assess their potential as future scientists;
- Determine where mutual research interests exist; and

- Make decisions regarding which applicants will be recommended and approved for the iCURE awards.

In each case, completing the application is voluntary, but in order to receive due consideration, the prospective trainee is encouraged to complete all relevant fields. The information is for internal use to make decisions about prospective fellows and students who could benefit from the iCURE program. The iCURE program has been approved for funding by the NCI Office of the Director.

Participation in the iCURE Program includes U.S. citizens, non-citizen nationals or legal permanent residents of the U.S. The full-time iCURE program may include: post-baccalaureates who have completed either college or master's level degrees, doctoral students, and postdoctoral-level fellows who have completed a doctoral degree, including a medical or dental or other doctoral-level degree. The iCURE particularly encourages the participation of individuals from underrepresented populations and is aligned with NCI's interest in diversity.

Post-baccalaureate applications include the Post baccalaureate IRTA Program online application through NIH Office of Intramural Training and Education (OITE) (OMB No. 0925-0299, Expiration Date 6/30/2019), and a Post-baccalaureate Supplemental Application with iCURE-specific information (**Attachment 1**). Graduate student applications include cover letter, CV, transcript, and contact information of three references (**Attachment 2**). Postdoctoral candidate applications also include cover letter, CV, transcript and contact information of three references (**Attachment 3**), but with additional details for the CV, such as service on scientific boards. Reference letters are requested from PIs, professors, and supervisors which ask for confirmation of an applicant's degree and expected graduation date, as well as motivation in pursuing research (**Attachment 4**).

In the first year (FY 2018) we received a total of 72 iCURE applications, including 29 post-baccalaureates, 11 graduate students and 32 postdoctoral fellows. The post-baccalaureate applications came to CRCHD through the NIH OITE, as per NIH policy. The graduate student and postdoctoral fellow applications came directly to CRCHD. Having the application system within CRCHD allowed us the ability to circulate the applications in encrypted format internally at NCI among extramural staff and intramural scientists who serve as evaluators and potential mentors. iCURE uses the information provided in the applications to facilitate matches between qualified applicants and IRP investigators. The application system also allows us to contact each interested applicant with information about the CURE and iCURE programs and provide guidance about career opportunities of interest to them. This is especially important for applicants to the iCURE, who are likely to be from underrepresented populations and would especially benefit from such guidance. One of CRCHD's primary mission goals is to enhance diversity in the cancer research workforce, and as such, CRCHD is uniquely positioned in the NCI to provide guidance to the iCURE applicants.

A.3 Use of Information Technology and Burden Reduction

Prospective post baccalaureate applicants for iCURE must apply through NIH OITE (post baccalaureates IRTA application) (OMB No. 0925-0299, Expiration Date 6/30/2019). In addition, post baccalaureate applicants must submit a supplemental application directly to CRCHD (**Attachment 1**). Prospective graduate student and postdoctoral applicants for iCURE must apply directly to CRCHD (**Attachments 2 and 3**).

Currently information that comes directly to CRCHD (post baccalaureate supplement application, graduate student and postdoctoral applications) will be collected by email submission. We are developing an electronic application system and expect to launch in two years.

The NCI Privacy Act Coordinator was consulted, and it was determined that a Privacy Impact Assessment (PIA) is needed and has been completed (see **Attachment 7**).

Applicants voluntarily submit their information to CRCHD by email. Information collected is only made available through encrypted emails or folders with restricted access to NIH account holders who are NCI or NIH scientific and program officials who recommend or approve fellowship awards and to administrative, human resources, and financial officials who prepare the necessary documentation to arrange for stipend payments and to activate the approved awards. These authorized individuals will access their emails or the folders with restricted access through NIH credentials. Applications not selected for iCURE support will be kept for three years; applications selected for iCURE support will be kept for up to 15 years.

The applications, including the applicant data, are stored on government-issued desktop computers and information systems that are protected at all entry points by firewalls and intrusion detection devices.

A.4 Efforts to Identify Duplication and Use of Similar Information

One primary purpose of the iCURE is to enhance diversity in the NCI IRP through fostering long-term research training efforts. Enhancing diversity requires targeted recruitment of students and scientists from underrepresented populations with a strong interest in cancer research.

Though the NIH OITE, which is part of the NIH Office of the Director, Office of Intramural Research, (NIH/OD/OIR/OITE) (OMB No. 0925-0299, Expiration Date 06/30/2019) has a fellowship application and review process, it is difficult for OITE to target underrepresented trainees with a strong cancer research interest. The OITE application is used by all NIH fellowship programs but does not include questions designed to describe the applicant's interests in the areas of cancer research that would help to determine their alignment with NCI interests. Also, OITE applications are directed at primarily lab-based trainees, which does not reflect the interests of the NCI DCEG. The OITE application system does not have a straight-forward way to strongly encourage applicants from diverse backgrounds. In addition, OITE does not have a system for postdoctoral level applications, where as 38% of iCURE scholars will be at the postdoctoral level.

NCI also has several application systems for various programs.

- The Graduate Student Recruitment Program application (OMB No. 0925-0750, Expiration Date 12/31/2019) is geared toward selection of candidates only in the senior graduate student level for a brief visit to the NCI;
- the Introduction to Cancer Research Careers Program and the Cancer Research Intern Programs (OMB No. 0925-0299, Expiration Date 06/30/2019) geared toward selection of candidates for a summer experience; and the
- Cancer Prevention Fellowship Program (OMB No. 0925-0749, Expiration Date 12/31/2019) is geared toward those who have a very specific cancer prevention focus.

None of the existing systems are ideally situated to help identify candidates from diverse backgrounds with a strong interest in cancer research and an intent to conduct long-term research at the NCI. The iCURE specific applications described in this submission will allow us to identify and communicate with potential iCURE scholars expeditiously and provide information specific to their interests.

A.5 Impact on Small Businesses or Other Small Entities

No small businesses or other small entities will be impacted.

A.6 Consequences of Collecting the Information Less Frequently

Without approval to collect applications specific to the program's needs, the iCURE program would be compromised in its ability to identify highly qualified trainees of various educational levels for the NCI intramural research programs.

A.7 Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

There are no special circumstances for this information collection request relating to the guidelines of 5 CFR 1320.5.

A.8.1 Comments in Response to the Federal Register Notice and Efforts to Consult Outside Agency

The 60-day Federal Register Notice was published on July 27, 2018 (83 FR 35665) and allowed 60 days for public comment. No public comments were received.

A.8.2 Efforts to Consult Outside Agency

CRCHD consulted with NIH Office of Intramural Training and Education (OITE) on many occasions between March and June 2018. These consultations occurred in person, phone, and email with Dr. Sharon Milgram (Director, OITE, NIH; 301-693-1281; milgrams@od.nih.gov), Dr. Patricia Wagner (Program Analyst, OITE, NIH; 240-476-3619; wagnerpa@od.nih.gov), and Dr. Patricia Sokolove (Deputy Director, Office of Intramural Research, NIH; 301-402-3889; sokolovp@od.nih.gov).

It was determined that the existing NIH OITE training program application forms (OMB No. 0925-0299, Expiration Date 6/30/2019) would need to undergo significant revisions to meet the needs of the iCURE program. It was decided that CRCHD would request OMB approval for their own application. However, it was agreed that for future applications, collaboration between NIH OITE and NCI CRCHD would be beneficial to both offices. As per NIH policy, the post baccalaureate IRTA program applications will continue to be collected through OITE.

A.9 Explanation of Any Payment of Gift to Respondents

Neither payments nor gifts will be provided to respondents who complete the applications.

A.10 Assurance of Confidentiality Provided to Respondents

There is no assurance of confidentiality provided to the applicants, however their information will be kept private, to the extent provided by law.

The NIH Privacy Act Officer was consulted, and it was determined the information collected is covered by the NIH Privacy Act Systems of Records Notice (SORN) is #09-25-0014, "Clinical Research; Student Records, HHS/PHS/NIH/OD/OIR/OE" (**Attachment 5**).

A.11 Justification for Sensitive Questions

The iCURE applications will collect information on race, ethnicity, gender, disability, and socioeconomic status. This will help us assess the effectiveness of the iCURE program in reaching its primary goal of enhancing diversity of the NCI intramural research community. This information will be used solely to help evaluate the outcomes of the iCURE program and identify gaps to be addressed.

A.12 Estimates of Hour Burden Including Annualized Hourly Costs

The iCURE program plans to collect applications and a reference letter to help evaluate the merits of the candidates and their potential match for the iCURE program. The iCURE program anticipates receiving 130 applications per year from post-baccalaureate, graduate, and postdoctoral candidates. The program

expects to receive an additional 240 reference letters to support the candidates. The annual estimate of burden is expected to be 305 hours for 370 individuals (Table A.12-1). This averages to 915 hours over a three-year information collection period.

A.12-1 Estimated Annualized Burden Hours

Form Name	Type of Respondent	Number of Respondents	Number of Responses per Respondent	Average Time Per Response (in hours)	Total Annual Burden Hour
Postbac Supplemental Application	Post-Baccalaureate (Including Post-Master's)	50	1	30/60	25
Graduate Student Application	Graduate	30	1	2	60
Postdoctoral Fellowship Application	Postdoctoral	50	1	2	100
Reference Letter	PIs, Professors, and Supervisors	240	1	30/60	120
Total		370	370		305

The annual respondent costs are estimated to be \$10,209.10 (Table A.12-2), or approximately \$30,627.30 over a three-year information collection period.

A.12-2 Annualized Cost to the Respondents

Type of Respondent	Total Annual Burden Hours	Hourly Respondent Wage Rate*	Respondent Cost
Post-Baccalaureate Candidates	25	\$19.18	\$479.50
Graduate Students	60	\$18.13	\$1,087.80
Postdoctoral Candidates	100	\$30.99	\$3,099.00
PIs, Professors, and Supervisors**	120	\$46.19	\$5,542.80
Total	305		\$10,209.10

*Hourly wage rates for post-baccalaureate, graduate, and postdoctoral candidates are based on the NCI Cancer Research Training (CRTA) stipend charts in Appendix 1 (<https://www.cancer.gov/grants-training/training/at-nci/crta.pdf>). The average of the lowest and highest stipend levels was calculated and then calculators.org was used to calculate an annual salary into an hourly rate.

- Post-baccalaureate and Masters (Category 2 and 3) - $\$30,400 + \$47,600 / 2 = \$39,000 / \text{year}$ or \$19.18/hour.
- Graduate (Category 4) - $\$36,200 + \$39,200 / 2 = \$37,700 / \text{year}$ or \$18.13/hour.
- Postdoctoral candidates (Category 5 for all Divisions) - $\$48,900 + \$90,000 / 2 = \$64,450 / \text{year}$ or \$30.99/hour.

**The hourly wage rate for the PIs, professors, and supervisors were calculated using the BLS wage rate for Medical Scientists (19-1042), https://www.bls.gov/oes/current/oes_nat.htm.

A.13 Estimate of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no capital costs, operating costs, or maintenance costs to report.

A.14 Annualized Cost to the Federal Government

The annualized cost to the Federal Government for the proposed data collection effort is estimated to be approximately \$188,673.40 (Table A.14-1). The Federal oversight amounts to \$38,673.40 and the contractor costs are \$150,000.

A.14-1 Annualized Cost to the Federal Government

Staff	Grade/Step	Salary***	% of Effort	Fringe (if applicable)	Total Cost to Gov't
Federal Oversight					
HSA	14-1	\$114,590	10%		\$11,459.00
Program Assistant	11-1	\$68,036	40%		\$27,214.40
Contractor Cost					\$150,000.00
Travel					\$0
Other Cost					\$0
Total					\$188,673.40

***<https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2018/DCB.pdf>

A.15 Explanation for Program Changes or Adjustments

This is an existing collection in use without an OMB approval. While the post baccalaureate IRTA program applications uses an OMB number, it came to our awareness that OMB clearance was needed for the other parts of the applications. This was confirmed, and this request was written expeditiously.

A.16 Plans for Tabulation and Publication and Project Time Schedule

There are no plans for tabulation or publication since this is a request for applications. The applications will be used for annual program assessments and reviews, as well as to assess the appropriateness of an applicant for the iCURE program.

The application period will open upon receiving OMB clearance and remain open for 2 months. Future year application period will be October through December (Table A.16-1).

Table A.16-1. Project Time Schedule: Application Opening and Closing Dates

Training Program	Application Opening Date	Application Closing Date
iCURE 2019 Program	Upon receiving clearance	2 months after opening
iCURE 2020 Program and following years	October	December

A.17 Reason(s) Display of OMB Expiration Date is Inappropriate

There is no request for exemption from displaying the expiration date for OMB approval.

A.18 Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the Certification for Paperwork Reduction Act Submissions.