The Congressionally Directed Medical Research Programs
FY23 Overview

Presented by
Donna M. Kimbark, Ph.D.
Program Manager, PRCRP

6 April 2023

Transforming Healthcare through Innovative and Impactful Research
Vision and Mission

Vision
Transform health care through innovative and impactful research

Mission
Responsibly manage collaborative research that discovers, develops, and delivers health care solutions for Service Members, Veterans and the American public
About CDMRP

Transform Healthcare through Innovative and Impactful Research

WHO
Started by Congress in 1992, CDMRP Manages Focused Biomedical Research

WHAT
Funds Innovative and Impactful Biomedical Research

WHY
Accelerating Research to Advance Cures, Improvements, and Breakthroughs

WHERE
Research Conducted in Institutions Around the World

HOW
Two-Tier Review Process Involving Scientists, Clinicians, and Consumers

https://cdmrp.health.mil
Background: Peer Reviewed Cancer Research Program

Began in Fiscal Year (FY) 2009 with an appropriation of $16 Million (M) and congressional language directing the topic areas (specific cancers and other research areas) to be funded.

- FY09-FY22: $784.8M, 921 awards
- FY23: $130M, To be determined

**Vision** – To advance mission readiness of those U.S. military members affected by cancer.

**Mission** – To successfully promote high-impact cancer research in prevention, detection, treatment, quality of life, and survivorship for Service Members, their families, Veterans, and the American public.

[cdmrp.health.mil/prcrp](http://cdmrp.health.mil/prcrp)

https://www.youtube.com/watch?v=g3TiEf97Ch0
Applicants must address at least one of the Topic Areas, as directed by Congress.

Funds may not be used for research into breast, kidney, lung, ovarian, pancreatic, prostate, rare cancers, or melanoma.

The inclusion of the individual Rare Cancers Research Program shall not prohibit the PRCRP from funding the above-mentioned cancers or cancer subtypes that may be rare by definition.
FY23 Congressional Language
Relevance to Service Members and their families

Requirement for all applicants to respond to Military Health Focus Areas

**Military Health Focus**
- Required for All Applications
- Programmatic Selection Factor

**Cancer Risk Factors**
- Environmental Exposures
- Occupational Exposures

**Mission Readiness**
- Gaps in Research Spectrum
- Gaps in Quality of Life

---

**Impact of Cancer on Military Health**

**Cancer Risk Factors**
- Traumatic brain injury increases hazard ratio for development of brain cancer
- Environmental exposures such as asbestos leads to mesothelioma risk
- Exposures to ionizing radiation leads to uterine, thyroid, blood, and other cancers
- Infectious diseases such as H. pylori is associated with stomach cancer risk

**Mission Readiness**
- Cancer diagnoses in Service Members and their families lead to force vulnerabilities
- Gaps in our knowledge of cancer care cause gaps in mission readiness
- Cancer affects the whole unit’s readiness, not just a single Service Member
- Military Health Systems are burdened with healthcare costs due to cancer diagnoses and treatment

---

UNCLASSIFIED
<table>
<thead>
<tr>
<th>General Oncology*</th>
<th>Hematology</th>
<th>Neurology</th>
<th>Otolaryngology</th>
<th>Pediatric</th>
<th>Reproductive Hereditary</th>
<th>Gastroenterology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bladder Cancer, Mesothelioma, Metastatic Cancers</td>
<td>Blood Cancers, Lymphoma, Myeloma</td>
<td>Brain Cancer, Pediatric Brain Tumors</td>
<td>Head and Neck Cancers</td>
<td>Pediatric, Adolescent and Young Adult Sarcoma, Thyroid Cancer, Neuroblastoma</td>
<td>Endometrial Cancer, Germ Cell Cancers, VHL malignancies</td>
<td>Esophageal Cancer, Colorectal Cancer, Liver Cancer, Stomach Cancer</td>
</tr>
</tbody>
</table>

*Portfolio are *not* directed by Congress and are used for management purposes only. Other Portfolios such as Legacy Portfolios cover topic areas no longer included under PRCRP.
**FY23 PRCRP Cancer Capability Gaps**

**Overarching Challenges – Research Gaps**

**Prevention**

*Develop innovative prevention strategies and early detection methods to decrease cancer burden*

*Elucidate the mechanisms underlying cancer development to improve prevention methods*

**Diagnostics**

*Identify strategies to predict treatment resistance, recurrence, and the development of advanced disease.*

*Distinguish unique features driving cancer occurrence across the spectrum of ages.*

*Develop and improve minimally invasive methods to detect cancer initiation, progression, and recurrence*

**Treatment**

*Transform cancer treatment, especially for advanced disease and metastasis*

*Improve current therapies including systemic and local treatments.*

*Longitudinal evaluation of disease progression and/or treatment response.*

*Elucidate the mechanisms of cancer development to improve treatment methods*
Patient Well-Being and Survivorship

* Develop strategies to address survivorship issues including quality of life, overall mental health, psychological impact of recurrence, and/or survivor permanent disability
* Develop strategies to reduce short- and long-term treatment effects, including neurocognitive deficits.
* Bridge gaps between treatment and survivorship including alternative medicine, nutrition and lifestyle factors, and supportive care

Disparity

* Improve prevention strategies, diagnosis, treatment, and outcomes for patients in underserved or under recognized populations
* Develop strategies to improve accessibility to care and to address survivorship.
* Advance health equity and reduce disparities in cancer care through research.
PRCRP: PAYAC and Related Topics
PAYAC: Pediatric, Adolescent, and Young Adult Cancers

• General Military Health Facts

◆ More than 1.3M people serve in the U.S. military (2020); >90% under 40 years old.
◆ More than 1.5M family members including spouses and children.


• Funding for PAYAC Associated Awards

<table>
<thead>
<tr>
<th>Topic Area</th>
<th>Investment FY22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Cancers</td>
<td>$3.62M</td>
</tr>
<tr>
<td>Brain Cancer</td>
<td>$1.46M</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>$3.81M</td>
</tr>
<tr>
<td>Germ Cell Cancer</td>
<td>$5.72M</td>
</tr>
<tr>
<td>Lymphoma</td>
<td>$4.32M</td>
</tr>
<tr>
<td>Neuroblastoma</td>
<td>$0.64M</td>
</tr>
<tr>
<td>PAYAC</td>
<td>$5.82M</td>
</tr>
<tr>
<td>Pediatric Brain Tumors</td>
<td>$7.19M</td>
</tr>
<tr>
<td>Sarcoma</td>
<td>$4.66M</td>
</tr>
<tr>
<td>Thyroid Cancer</td>
<td>$1.26M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special Award Mechanism</th>
<th>Investment FY22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergent Science Cancer</td>
<td>$3.17M</td>
</tr>
<tr>
<td>Consortium Development Award</td>
<td></td>
</tr>
</tbody>
</table>

➢ FY09-FY21 Total Investment = $144M

*Only includes PAYAC associated awards, not all awards from that topic area
PCCRP Major Areas of Investment

- **Initiative I: Advance Convergent Science in Cancer Research**
  - Convergent Science Virtual Cancer Center to catalyze training of early career investigators in an interactive multi-cancer network.
  - Cultivate convergent science to advance cancer research through innovative funding opportunities.

- **Initiative II: Support the Research Continuum toward Fielded Science**
  - Support innovative, discovery-based research.
  - Enhance translational research.
  - Accelerate research toward fielded science.
Initiative II: Support the Research Spectrum
FY23 Investment Strategy

- Choose the right funding opportunity
- Not all funding opportunities are alike
<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Key Characteristics</th>
<th>Funding (Direct Costs)</th>
<th>Deadline Dates</th>
</tr>
</thead>
</table>
| Advancing Cancer Care through Clinical Trials Award (ACCCT)               | • Pre-application screened for invitation  
• Supporting a clinical trial with focus on cancer care  
• Preliminary data required  
• Transition to next phase of development                                | $3M over 4 years                       | Preapp: 25 May 2023  
Full App: 12 Sept 2023                                                     |
| Career Development Award – Fellow Option                                  | • Letter of Intent: No invitation needed  
• Eligibility: Research Assistant Professor, instructor.  
• Early career investigators not fully independent.  
• Intended to support the wider independence                        | $400K over 2 years                      | Letter of Intent (LOI):  
25 July 2023  
Full App: 10 Aug 2023                                                      |
| Career Development Award – Resident Option                               | • Letter of Intent: No invitation needed  
• Eligibility: Physician Scientist in Residency.  
• Research Funding levels for 1 year or 2 years  
• Protected time required                                         | $200K over 1 year  
$400K over 2 years                                              | LOI: 3 Aug 2023  
Full App: 24 Aug 2023                                                      |
| Idea Award                                                               | • Pre-application screened for invitation  
• High-risk/high-gain, innovation is key!  
• Preliminary data discouraged                                       | $400K over 2 years                      | Preapp: 25 May 2023  
Full App: 12 Sept 2023                                                      |
| Impact Award                                                             | • Pre-application screened for invitation  
• Supports research toward clinical applicability  
• Clinical trials allowed  
• Preliminary data required                                         | $1M over 3 years                       | Preapp: 25 May 2023  
Full App: 12 Sept 2023                                                      |
| Patient Well-Being and Survivorship Award                                | • Letter of Intent: No invitation needed  
• Formerly Behavior Health Science Award  
• Studies focusing on survivorship and Quality of Life  
• Allows pilot clinical trials                                      | $1M over 3 years                       | LOI: 25 July 2023  
Full App: 10 Aug 2023                                                      |
| Translational Team Science Award                                         | • Letter of Intent: No invitation needed  
• Supports 2-3 Principal Investigators  
• Correlative studies associated with a clinical trial  
• Preliminary data required                                         | $2.5M over 4 years                      | LOI: 25 July 2023  
Full App: 10 Aug 2023                                                      |
# Invitation-Required Opportunities

## Idea Award
- One-page pre-proposal
- *Preliminary data is discouraged!*
- Basic, high-risk/high-gain research
- Independent PIs
- $400k over 2 years

## Impact Award
- One-page pre-proposal
- Clinical trial option
- *Preliminary data is required*
- Continuity of research with emphasis on near-term impact
- Assistant Professor or equivalent
- $1M over 3 years

## Advancing Cancer Care through Clinical Trials (ACCCTA)
- Three-page pre-proposal
- *Pre-clinical data is required*
- Clinical trial is required
- *No* preclinical projects allowed
- IND/IDE submission by time of application deadline
- Assistant Professor or equivalent
- $3M over 4 years

---

**Idea and Impact Awards:** Pre-proposal due 25 May 2023  
**Invitation** by 29 June 2023  
**Full application** due 12 September 2023

**ACCCTA:** Pre-proposal due 25 May 2023  
**Invitation** by 29 June 2023  
**Full application** due 27 September 2023
# Letter of Intent Opportunities

## Patient Well-Being and Survivorship Award
- **Letter of Intent: Pilot Clinical Trial (PCT) Option**
  - Preliminary data only required for PCT Option
  - Independent Investigator
  - Quality of life, preservation of function, neurocognitive issues, long-term side effects
  - $1M over 3 years

## Translational Team Science Award
- **Letter of Intent: Clinical Trial Option**
  - Preliminary data required for supporting correlative studies associated with ongoing or completed clinical trial
  - At least 2-3 PIs at the level of Assistant Professor
  - $2.5M for 4 years

## Career Development Award – Fellow Option
- **Letter of Intent: For scientists or Physician Scientists within 7 years of terminal degree**
  - Preliminary data not required
  - Supports early career investigators toward further independence
  - Research Assistant Professor, Instructor – independent lab space is not required
  - $400k over 3 years

## Career Development Award – Resident Option
- **Letter of Intent: For Residents to participate in research**
  - Preliminary data not required
  - Supports two different research levels—required to perform work between June 2024-2026
  - Research level 1: $200K over 1 year, or Research Level 2: $400K over 2 years

---

**Letter of Intent** due 25 July 2023  
**Full application** due 10 August 2023
Funding Opportunities

- Pre-announcements and funding opportunity release notifications
  - CDMRP website and email blasts
- Funding opportunity postings
  - Grants.gov (CFDA 12.420)
  - CDMRP website (cdmrp.health.mil)
  - electronic Biomedical Research Application Portal (eBRAP) system (ebrap.org)
- Quickly find open CDMRP Funding Opportunities on the CDMRP website here:
  - Home > Funding Opportunities > Synopsis of Open Program Funding Opportunities
Applying for Funding

Understanding the goals of the program, intent of the award mechanism, and review criteria is critical for a successful application.

- The funding opportunity announcement contains information on:
  - Program Goals
  - Focus Areas/Topics
  - Award Intent
  - Required Elements, Eligibility, and Funding
  - Review Criteria
  - Deadlines

Single most important tip: Read the announcement carefully.
Program Cycle

- Stakeholders Input/Meetings*
- Vision Setting
- Funding Opportunities Released†
- Pre-Application Receipt
- Pre-Application Screening and Invitation to Submit*  
- Programmatic Panel
- Programmatic Review
- Peer Review
- Funding Recommendations
- Commanding General Approval
- Award Negotiations
- Award Management
- Research Outcomes
- Award Closeout
- Research News/Reports
- Monthly 6
- To Month 24
- Annual Appropriation, Review, and Award Cycle
- Month 12
- Month 18
- To Month 84
- Awards Management

*As needed
†Pending Congressional appropriation
Goal of the Two-Tier Review Process

To develop funding recommendations that balance *the most meritorious science* across many disciplines and offer the highest promise to *fulfill the programmatic goals* set forth in the funding opportunity.

Peer Review

- Criterion-based evaluation of full proposal
- Determination of “absolute” scientific merit
- **Outcome: Summary Statements**
  - No standing panels; reviewers are recruited based on expertise needed
  - No contact between applicants, reviewers, and program staff

Programmatic Review

- Comparison among proposals of high scientific merit
- Determination of adherence to intent, program relevance, and potential for impact
- **Outcome: Funding Recommendations**
  - No “pay line” (portfolio balance)
  - Funds obligated up-front; limited out-year budget commitments (but milestones imposed)
  - No continuation funding

Video and additional information available at: [https://cdmrp.health.mil/about/2tierRevProcess](https://cdmrp.health.mil/about/2tierRevProcess)
II.E.1.a. Peer Review

To determine technical merit, all applications will be evaluated according to the following **scored criteria**, which are listed in decreasing order of importance:

<table>
<thead>
<tr>
<th>Scored</th>
<th>Unscored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Investigator</td>
<td>Personnel</td>
</tr>
<tr>
<td>Career Development Plan, Environment, Career Guide</td>
<td>Budget</td>
</tr>
<tr>
<td>Research Strategy and Feasibility</td>
<td>Application Presentation</td>
</tr>
<tr>
<td>Impact</td>
<td></td>
</tr>
<tr>
<td>• Principal Investigator</td>
<td></td>
</tr>
<tr>
<td>◦ Whether the PI meets the eligibility requirements.</td>
<td></td>
</tr>
<tr>
<td>◦ To what degree the PI’s career goals demonstrate a strong personal commitment to advancing an independent career at the forefront of cancer research.</td>
<td></td>
</tr>
<tr>
<td>◦ How relevant the research would be to support the early-career investigator toward wider independence and success.</td>
<td></td>
</tr>
<tr>
<td>◦ To what extent the PI’s record of accomplishments and letters of support demonstrate their potential for advancement as a productive, independent investigator in cancer research in at least one of the FY23 PRCRP Topic Areas in Section II.A.1 and at least one of the FY23 PRCRP Overarching Challenges.</td>
<td></td>
</tr>
<tr>
<td>◦ Whether the application demonstrates that the candidate has been named on and awarded nominal career development funding.</td>
<td></td>
</tr>
</tbody>
</table>
Programmatic Review Criteria

I.E.1.b. Programmatic Review

To make funding recommendations and select the application(s) that, individually or collectively, will best achieve the program objectives, the following criteria are used by programmatic reviewers:

- Ratings and evaluations of the peer reviewers
- Relevance to the mission of the DHP and FY23 PRCRP, as evidenced by the following:

Fellow and Resident Options:

- Adherence to the intent of the award mechanism
- Program portfolio composition
- Programmatic relevance to the FY23 Military Health Focus Areas
- Programmatic relevance to the FY23 PRCRP Overarching Challenges
- Relative impact

Programmatic Panel membership lists are available on the CDMRP website
Strategies to Answer Challenges

● Plan Ahead

◆ Deadlines are important!
◆ Dissect the Funding Opportunity and Understand it
◆ Coordinate your efforts: bring the team together early

● Grantsmanship

◆ Clear voice, forget the jargon: don’t tire the reviewers
◆ Review your documents prior to submission: use the verification period!
◆ Use the Peer Review Criteria as your check list!

● What’s the Intent

◆ The Ted Talk: state your idea upfront, then back it up!
◆ Make your case to how your research aligns with the intent

● Impact

◆ Cool science is good: impactful science is great!
◆ Show how it is impactful, important to patients
◆ Use plain language! You will be evaluated on this!

● Feasibility

◆ Clearly define your team’s skills
◆ Outline your justification on how and why you can achieve the anticipated outcomes

Questions? help@eBRAP.org
Pitfalls to Avoid in Application Submission

- **Do not** include Programmatic Panel members for the program and fiscal year to which you are applying.
- **Do not** exceed the page limits; check files after creating PDF version.
- **Do not** miss the submission deadline.
  - Grants.gov validation may take up to 72 hours.
  - System-to-system submissions are sometimes problematic.
  - Application verification in eBRAP is possible before the deadline.
- **Do NOT** ignore the Verification Period!
- Submit the correct Project Narrative and Budget.
  - These components cannot be modified during the verification period in eBRAP.

<table>
<thead>
<tr>
<th>FY23 Panel Member</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lt. Col. Della Howell, M.D., U.S. Air Force Retired (Chair)</td>
<td>Methodist Children's Hospital</td>
</tr>
<tr>
<td>Jill Barnholtz-Sloan, Ph.D.</td>
<td>National Cancer Institute</td>
</tr>
<tr>
<td>Clark Chen, M.D., Ph.D.</td>
<td>University of Minnesota</td>
</tr>
<tr>
<td>Cmdr. Michele Gage, M.D., U.S. Navy</td>
<td>Walter Reed National Military Medical Center</td>
</tr>
<tr>
<td>Doug Hawkins, M.D.</td>
<td>Seattle Children's Hospital</td>
</tr>
<tr>
<td>Adam Hayden (Consumer)</td>
<td>National Brain Tumor Society</td>
</tr>
<tr>
<td>Yin-Fen Lee, Ph.D.</td>
<td>University of Rochester</td>
</tr>
<tr>
<td>Barbara Lind (Consumer)</td>
<td>Society of Gemological Oncology</td>
</tr>
<tr>
<td>Aaron Mansfield, M.D.</td>
<td>The Mayo Clinic</td>
</tr>
<tr>
<td>Robert Mesloh (Consumer)</td>
<td>Lymphoma Research Foundation</td>
</tr>
<tr>
<td>Col. Thomas Newton, M.D., U.S. Air Force Retired</td>
<td>Inova Schar Cancer Institute</td>
</tr>
<tr>
<td>Col. Aaron Pitney, M.D., U.S. Army</td>
<td>U. S. Army Training and Doctrine Command</td>
</tr>
<tr>
<td>Heath Skinner, M.D., Ph.D.</td>
<td>University of Pittsburgh</td>
</tr>
<tr>
<td>Kenneth Tanabe, M.D.</td>
<td>Massachusetts General Hospital</td>
</tr>
<tr>
<td>Mechanism</td>
<td>Key Characteristics</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
</tbody>
</table>
| Advancing Cancer Care through Clinical Trials Award (ACCCT) | • Pre-application screened for invitation  
• $3M over 4 years | Preapp: 25 May 2023  
Full App: 12 Sept 2023 |
| Career Development Award – Fellow Option            | • Letter of Intent: No invitation needed  
• $400K over 2 years | Letter of Intent (LOI):  
25 July 2023  
Full App: 10 Aug 2023 |
| Career Development Award – Resident Option          | • Letter of Intent: No invitation needed  
• Research Level 1: $200K over 1 year  
• Research Level 2: $400K over 2 years | LOI: 3 Aug 2023  
Full App: 24 Aug 2023 |
| Idea Award                                          | • Pre-application screened for invitation  
• $400K over 2 years | Preapp: 25 May 2023  
Full App: 12 Sept 2023 |
| Impact Award                                        | • Pre-application screened for invitation  
• $1M over 3 years | Preapp: 25 May 2023  
Full App: 12 Sept 2023 |
| Patient Well-Being and Survivorship Award          | • Letter of Intent: No invitation needed  
• $1M over 3 years | LOI: 25 July 2023  
Full App: 10 Aug 2023 |
| Translational Team Science Award                    | • Letter of Intent: No invitation needed  
• $2.5M over 4 Years | LOI: 25 July 2023  
Full App: 10 Aug 2023 |
Questions?
For more information, please visit: cdmrp.health.mil