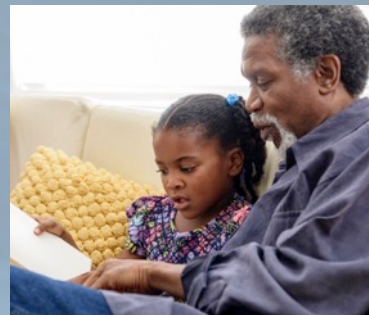


Introduction to Peer Reviewed Cancer Research Program (PRCRP) Funding Opportunities

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Peer Reviewed Cancer Research Program

CUTTING EDGE RESEARCH



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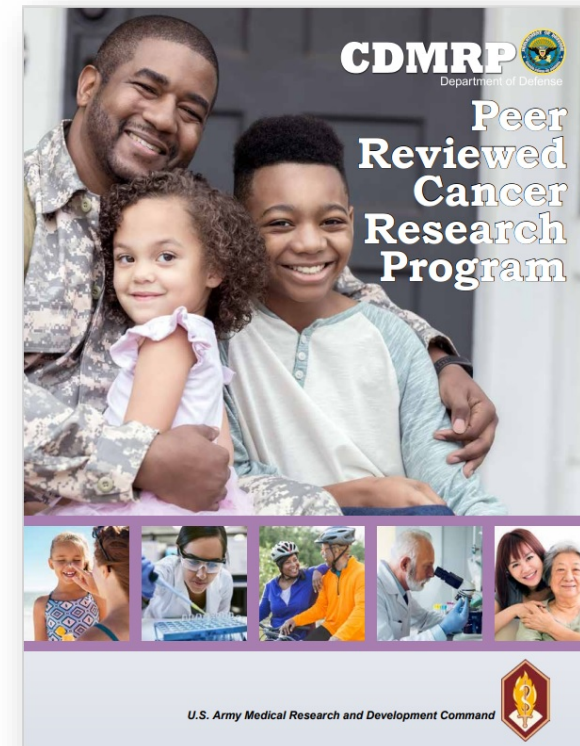


Agenda for Webinar



PRCRP Introduction

- **History** – 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. From FY09-FY22, a total of 35 topic areas have been included under the PRCRP.
 - FY09-FY21^ψ: \$654.8 M, 920 awards
 - FY22: \$130 M, TBD*
- **Vision** – To advance mission readiness of those U.S. military members affected by cancer and to improve quality of life by decreasing the burden of cancer on Service members, their families, Veterans, and the American public.
- **Mission** – To successfully promote high-impact cancer research for prevention, detection, treatment, quality of life, and survivorship.



^ψFY21 Awards are under negotiation to be finalized 30 September 2022

*TBD: To Be Determined

FY22 PRCRP Congressional Language

FY22 Topic Areas

- ◆ Bladder Cancer
- ◆ Blood Cancers
- ◆ Brain Cancer
- ◆ **Colorectal Cancer**
- ◆ Endometrial Cancer
- ◆ Esophageal Cancer
- ◆ **Germ Cell Cancers**
- ◆ Head and Neck Cancer
- ◆ Liver Cancer
- ◆ **Lymphoma**
- ◆ Mesothelioma
- ◆ **Metastatic Cancers**
- ◆ Myeloma
- ◆ **Neuroblastoma**
- ◆ **Pediatric brain tumors**
- ◆ **Pediatric, Adolescent, and Young Adult Cancers**
- ◆ **Sarcoma**
- ◆ Stomach Cancer
- ◆ **Thyroid Cancer**
- ◆ **Von Hippel-Lindau syndrome malignancies** (excluding cancers of the kidney and pancreas)

FY22 Details

- ◆ FY22 Topics areas = 20 (including new or returning)
- ◆ Prohibited cancers:
 - ❖ Breast Cancer
 - ❖ Pancreatic Cancer
 - ❖ Prostate Cancer
 - ❖ Ovarian Cancer
 - ❖ Kidney Cancer
 - ❖ Lung Cancer
 - ❖ Melanoma
 - ❖ Rare Cancer
- ◆ *The inclusion of the individual rare cancer research program shall not prohibit the peer-reviewed cancer research program from funding the above-mentioned cancers or cancer subtypes that may be rare by definition*
- ◆ Relevance to Service Members and their families required

PRCRP: PAYAC and Related Topics

PAYAC: Pediatric, Adolescent, and Young Adult Cancers

◆ General Military Health Facts

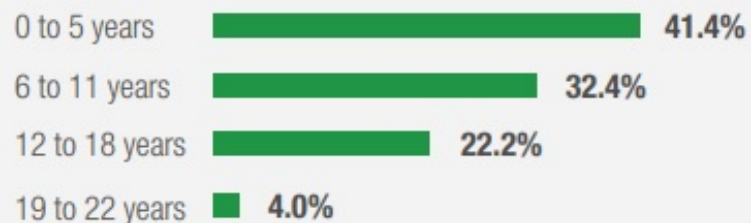
- ◆ More than 1.3M people serve in the US military (2020), >90% under 40 years old.
- ◆ More than 1.5M family members including spouses and children.

Active Duty Children (n = 964,485)



35.9% Active Duty members with children

Children in each age group



◆ Funding for PAYAC Associated Awards

Topic Area	Investment FY09-FY20
Blood Cancers*	\$4.1M
Brain Cancer*	\$4.3M
PAYAC	\$29.9M
Immunotherapy*	\$2.9M
Liver Cancer*	\$1.4M
Lymphoma	\$6.7M
Neuroblastoma	\$18.5M
Pediatric Brain Tumor	\$26.2M



- FY21 PAYAC and Associated Topic Areas - \$50M
- FY09-FY21 Total Investment = \$144M

FY22 Congressional Language: Relevance to Military Health Focus Areas

Required for All Funding Opportunities

- ◆ Environmental/Exposure risk factors associated with cancer (e.g., ionizing radiation, chemicals, infectious agents, and environmental carcinogens)
- ◆ Gaps in cancer research that may affect mission readiness
 - ❖ Gaps in cancer prevention, early detection/diagnosis, prognosis, and/or treatment
 - ❖ Gaps in quality of life and/or survivorship

Impact of Cancer on Military Health

 Cancer Risk Factors	 Mission Readiness
Traumatic brain injury increases hazard ratio for development of brain cancer	Cancer diagnoses in Service Members and their families lead to force vulnerabilities
Environmental exposures such as asbestos leads to mesothelioma risk	Gaps in our knowledge of cancer care cause gaps in mission readiness
Exposures to ionizing radiation leads to uterine, thyroid, blood, and other cancers	Cancer affects the whole unit's readiness , not just a single Service Member
Infectious diseases such as H. pylori is associated with stomach cancer risk	Military Health Systems are burdened with healthcare costs due to cancer diagnoses and treatment

FY22 PRCRP Cancer Capability Gaps Overarching Challenges

Prevention



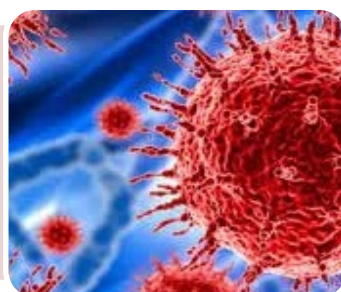
- Develop prevention strategies/early detection methods
- Identify/Elucidate mechanism to improve prevention

Diagnostics



- Identify strategies to predict treatment, recurrence, resistance
- Distinguish features driving cancer occurrence across the age spectrum
- Develop minimal invasive detection

Treatment



- Transform Cancer Treatment
- Advance Immunotherapy
- Multidimensional studies of biospecimens
- Elucidate mechanisms to improve treatment

Behavioral



- Develop strategies to address survivorship issues
- Develop strategies to reduce short/long term treatment effects

Diversity



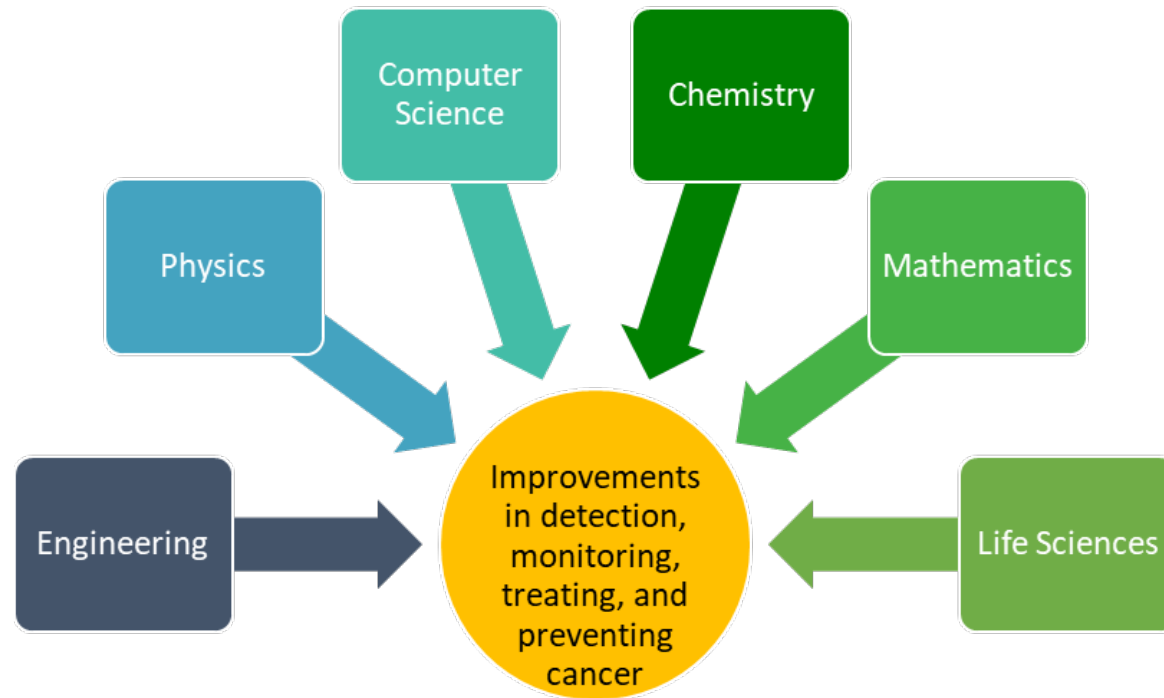
- Improve prevention, diagnosis, treatment, outcomes in underserved, under recognized populations
- Develop strategies to improve access to care

Resources



- Develop open access platform(s) or methods/tools to coordinate & integrate multiple databases and biorepositories interfaces

FY22 PRCRP Strategic Plan: Convergent Science Approach



◆ Initiative I: Convergence and Career Development

- ❖ Virtual Cancer Center
- ❖ Aims to enhance the career development stage with the inclusion of convergent science training to include military health

◆ Initiative II: Innovation and Impact

- ❖ Opportunity to support innovative, impactful ideas
- ❖ Opportunity to enhance support of clinically relevant ideas
- ❖ Opportunity to invest in convergent science

Convergent science* *“is a means of solving vexing research problems, in particular, complex problems... It entails integrating knowledge, methods, and expertise from different disciplines and forming novel frameworks to catalyze scientific discovery and innovation.”*

*<https://www.nsf.gov/od/oia/convergence/index.jsp>

PRCRP Strategic Plan Funding Opportunities

Convergence Science

- FY20 Virtual Cancer Center*
- Career Development Award – Scholar Option
- Convergent Science Cancer Consortium Development Award

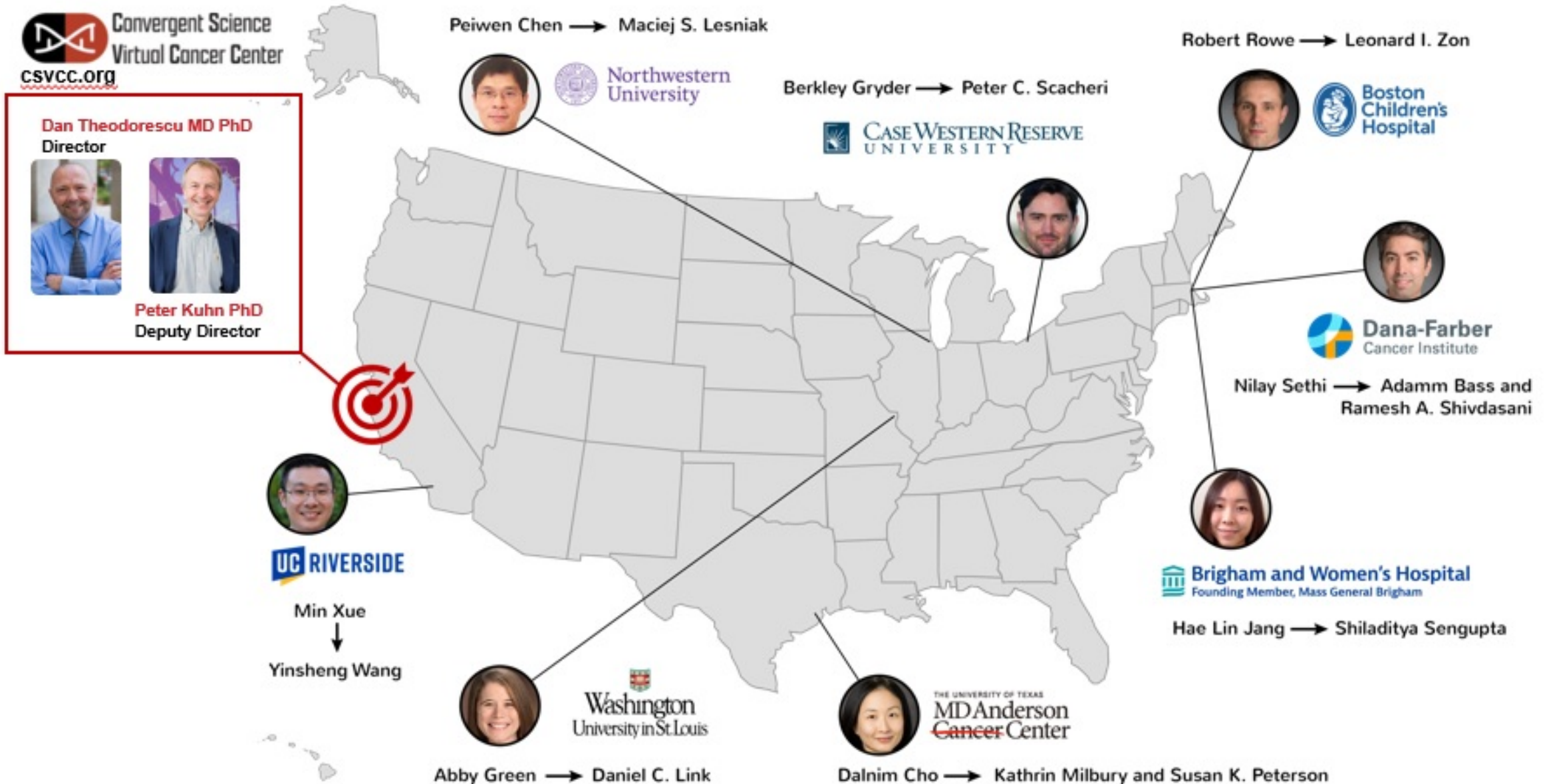
Innovation and Impact

- Career Development Award - Fellow Option
- Idea Award
- Impact Award
- Translational Team Science Award
- Behavioral Health Science Award

*FY20 Virtual Cancer Center Director Award not offered in FY22

FY20- FY24 PRCRP Virtual Cancer Center

Virtual Cancer Center Director Award: \$2.1M: Career Development Award – Scholar Option: \$10.5M -- Total Investment: \$12.6M



FY22 PRCRP Funding Opportunities Available

Letter of Intent – No Invitation needed

Career Development Award



Virtual Cancer Center Scholar Option

- \$800,000 in direct costs (4 year period of performance)
- Fully independent, tenure track Assistant Professor (< 7 yrs terminal degree)
- Supports the addition Scholars to the unique, interactive Virtual Cancer Center
- Provides intensive mentoring, national networking, and a peer group for junior faculty
- Must address FY22 Topic Areas, Military Health Focus Areas, and Overarching Challenges



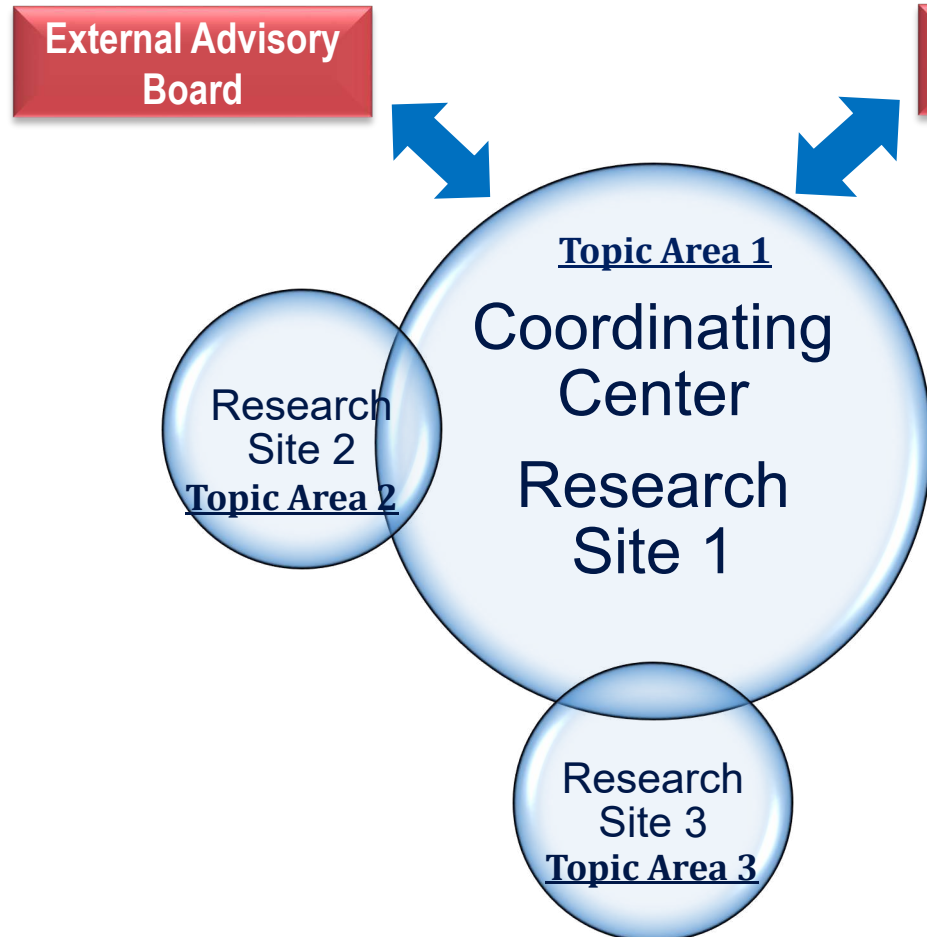
Fellow Option

- \$400,000 in direct costs (3 year period of performance)
- Independent investigators at level of Research Assistant Professor, Instructor (<7 yrs terminal degree)
- Supports early-career investigators toward further independence to conduct impactful research with the mentorship of an experienced cancer researcher
- Must address FY22 Topic Areas, Military Health Focus Areas, and Overarching Challenges

FY22 PRCRP Funding Opportunities Available

Letter of Intent – No Invitation needed

Convergent Science Cancer Consortium Development Award



- ◆ \$2.5M direct costs 2 year period of performance
- ◆ PI for Coordinating Center (Consortium Director): Investigators at or above the level of Associate Professor; **Co-PI for the Research Site:** Investigators at or above the level of Assistant Professor
- ◆ Supports novel approaches to ending cancer
- ◆ Proof of principle (convergent science) research projects support
- ◆ Emphasis is on the development of a convergent science infrastructure
- ◆ **Address 3 FY22 PRCRP Topic Areas**
- ◆ Address FY22 PRCRP Military Health Focus Area
- ◆ Address 1 FY22 PRCRP Overarching Challenge

One Overarching Challenge

FY22 PRCRP Funding Opportunities Available

Letter of Intent – No Invitation needed



Behavioral Health Science Award

- \$1M in direct costs (4 year period of performance)
- Independent investigator with a faculty-level appointment (or equivalent)
- Supports research that spans the spectrum of behavioral health science including prevention, survivorship, quality of life, and psychosocial research related to cancer – Pilot Clinical Trials allowed
- Must address FY22 Topic Areas, Military Health Focus Areas, and Overarching Challenges



Translational Team Science Award

- \$2.5M in direct costs (4 year period of performance)
- At least 2-3 PIs (at the level of Assistant Professor or equivalent)
- Supports translational studies associated with an ongoing or completed clinical trial that can lead to a future clinical trial or clinical application in cancer research – Clinical Trials allowed
- Must address FY22 Topic Areas, Military Health Focus Areas, and Overarching Challenges

FY22 PRCRP Funding Opportunities Available

Preproposal – Invitation Required



Idea Award

- \$400,000 direct costs (2 year period of performance)
- Independent investigator/ faculty-level appointment
- Supports innovative, untested, high-risk/ potentially high-reward concepts, theories, paradigms, and/or methods in cancer
- Must address FY22 Topic Areas, Military Health Focus Areas, and Overarching Challenges

Impact Award

- \$1M direct costs 3 year period of performance
- Independent investigators at or above the level of Assistant Professor
- Supports research projects that, if successfully addressed, have the potential to make a *near-term, major impact*
- Clinical Trials allowed
- Must address FY22 Topic Areas, Military Health Focus Areas, and Overarching Challenges

Dates to Remember Submission Deadlines

Funding Opportunity	LOI or Preproposal/ Date		Invitation to Submit	Full Application Deadline
Behavioral Health Science	LOI	12 July 2022	Not needed	2 August 2022
Career Development Award – Scholar Option	LOI	12 July 2022	Not needed	2 August 2022
Career Development Award – Fellow Option	LOI	12 July 2022	Not needed	2 August 2022
Translational Team Science	LOI	12 July 2022	Not needed	2 August 2022
Convergent Science Cancer Consortium Development	LOI	17 August 2022	Not needed	7 September 2022
Idea	Pre-proposal	25 May 2022	11 July 2022	7 September 2022
Impact	Pre-proposal	25 May 2022	11 July 2022	7 September 2022

◆ Plan Ahead

- ◆ Deadlines are important!
- ◆ 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

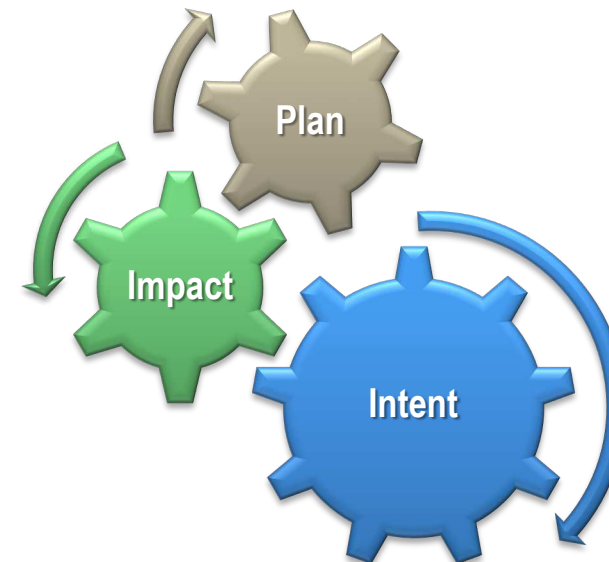
- ◆ The Ted Talk → state your idea upfront, then back it up!
- ◆ Make your case to how your research aligns with the intent

◆ 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



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

FY22 Panel Member Organization
Lt Col Della Howell, M.D. (Chair), Brooke Army Medical Center
Clark Chen, M.D., Ph.D., University of Minnesota
Dan Dixon, Ph.D. , University of Kansas Medical Center
Paul Doetsch, Ph.D., National Institute of Environmental Health Sciences
LCDR Michelle Gage, M.D., Walter Reed National Military Medical Center
Adam Hayden, National Brain Tumor Society
Douglas Hawkins, M.D., Seattle Children's Hospital
Yi-Fen Lee, Ph.D., University of Rochester
Barbara Lind, Society of Gynecological Oncology
Aaron Mansfield, M.D., The Mayo Clinic
Robert Mesloh, M.P.M., Lymphoma Research Foundation
COL (Ret) Thomas Newton, M.D., Inova Schar Cancer Institute
Kenneth Tanabe, M.D., Massachusetts General Hospital
Chiaojung Jillian Tsai, M.D., Ph.D., Memorial Sloan Kettering Cancer Center

Let's Talk Common Questions

◆ I'm not from the US, can I still apply?

- ◆ Yes, you will need to register with SAM; see the General Application Instructions for more information.

◆ When are the due dates?

- ◆ You can find the due dates on the front page of every program announcement.

◆ Can a post-doc apply to the Career Development Award?

- ◆ No, the Career Development Award, both Scholar and Fellow options, require a degree of independence. You can be a Research Assistant Professor or Instructor for the Fellow Option.

◆ Do I have to use a military population in studies

- ◆ No. That's not necessary. You use a population that is representative. I cannot help you collaborate with a military research center.

◆ Where do I apply?

- ◆ Start your application on ebrap.org
- ◆ Find the funding opportunities on cdmrp.army.mil or grants.gov – listing number 12.420

◆ Can we get a copy of this briefing

- ◆ Yes. I am sure that RALLY will be able to provide it to you.

For more information, please visit:

<https://cdmrp.army.mil/prcrp>

More information on CDMRP, the review system, how to apply:

https://cdmrp.army.mil/pubs/Webinars/webinar_series

