Pre-application webinar for RFA-CA21-049: Division of Cancer Biology Multi-Consortia Coordinating Center (U24)

Agenda:

1. *Begin presentation at 2:03 pm EST*
2. *RFA Presentation*
3. *Q&A; please enter questions in the Q&A box*

Audio for webinar:
1-650-479-3207
Meeting access number:
180 342 1170
Note: this meeting will be recorded

Shannon Hughes, Ph.D.
Deputy Director,
Division of Cancer Biology
shannon.hughes@nih.gov

NIH NATIONAL CANCER INSTITUTE

September 13, 2021

The NCI Division of Cancer Biology (DCB)

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The overall goal of the DCB Multi-Consortia Coordinating Center (MC2 Center) is to **maximize the combined impact of DCB programs, by creating a common coordinating body to facilitate collaborations, resource sharing, and outreach activities** across DCB programs.

Mechanism of Support – U24:
DCB Multi-Consortia Coordinating Center (MC^2 Center)

Mechanism of support: U24, Resource-Related Research Project – Cooperative Agreement

The purpose of the U24 mechanism is to support research projects contributing to improvement of the capability of resources to serve biomedical research.

Application Type: All submissions will be **Type 1 (new applications)**

Budget: Not to exceed **$1.2M per year (direct costs)**. *Cap is exclusive of 3rd party F&A costs.*

Project Period: 5 years.

Projects that propose basic cancer biology research instead of the activities outlined in the FOA will be deemed non-responsive.

Programs coordinated by the DCB MC^2 Center

The MC^2 Center U24 will initially coordinate six programs in the Division of Cancer Biology:

- **Cancer Cell Biology Imaging Research Program** (CCBIR, https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-21-002.html),
- **Cancer Systems Biology Consortium** (CSBC, www.csbconsortium.org),
- **Cancer Tissue Engineering Collaborative** (TEC, www.cancer.gov/tec),
- **Metastasis Research Network** (MetNet, https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-20-029.html),
- **Patient-Derived Models of Cancer** initiative (PDMC, www.cancer.gov/pdmc),
- **Physical Sciences-Oncology Network** (PS-ON, https://physics.cancer.gov).

Programs coordinated by the DCB MC^2 Center

Currently active projects in programs with no previous coordinating center:

- **Cancer Cell Biology Imaging Research Program** (CCBIR): Beginning Fall 2021 with 4 U54 awards made under RFA-CA21-002 (no additional funding announcements anticipated at this time)
- **Metastasis Research Network** (MetNet): Beginning Fall 2021 with 4 U54 awards made under RFA-CA20-029 (no additional funding announcements anticipated at this time)
- **Patient-Derived Models of Cancer** initiative (PDMC): https://reporter.nih.gov/search/yKnFEevyNEGJUCMQx-_0VQ/projects?shared=true

Programs coordinated by the DCB MC^2 Center

Currently active projects in programs with an active coordinating center:

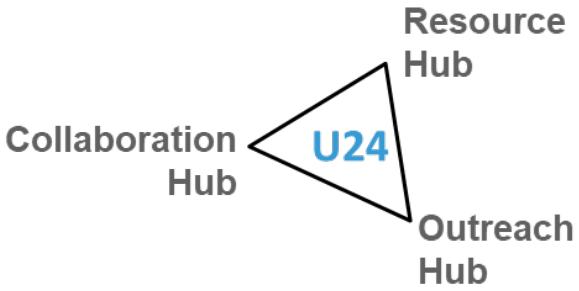
- **Cancer Systems Biology Consortium** (CSBC): https://reporter.nih.gov/search/Z0YZx-6XZ0CgI-Pbyha_zw/projects?shared=true
- **Cancer Tissue Engineering Collaborative** (TEC): https://reporter.nih.gov/search/FIZ6zfofykenwJOJd1O9mw/projects?shared=true
- **Physical Sciences-Oncology Network** (PS-ON): https://reporter.nih.gov/search/K-9O3myLTk2dUYpFDordTg/projects?shared=true

Resources generated and shared by the CSBC, PS-ON, and TEC programs is currently located on the Cancer Complexity Knowledge Portal: https://cancercomplexity.synapse.org/

Note the currently active coordinating center award ends August 2022. It is expected that sharing of legacy resources will be facilitated by the MC^2 Center.

Structure of the DCB MC^2 Center

Coordination of program steering committees, scientific interest groups, annual program meetings, and **collaborative activities**



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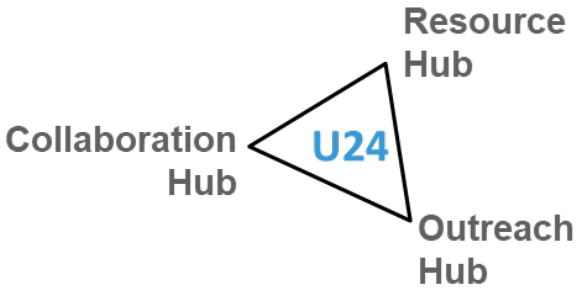

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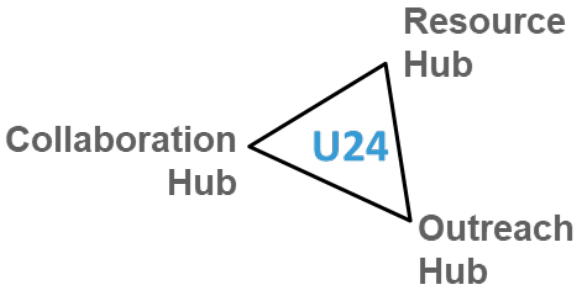

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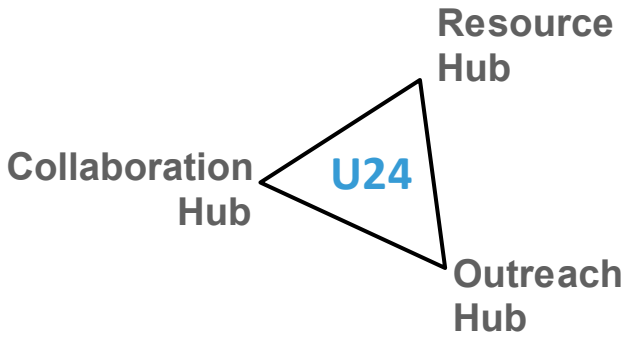
Focus on **curation and presentation of FAIR tools and resources**; coordination of **education and outreach activities**

Research Strategy

12 page limit – see FOA Part 2, Section IV

In lieu of the Standard sub-sections listed in the SF424 (R&R) Application Guide, the Research Strategy must consist of the following modified sub-sections:

- *Sub-section A: Overview and Significance*
- *Sub-section B: Collaboration Hub*
- *Sub-section C: Resource Coordinating Hub*
- *Sub-section D: Outreach Hub*



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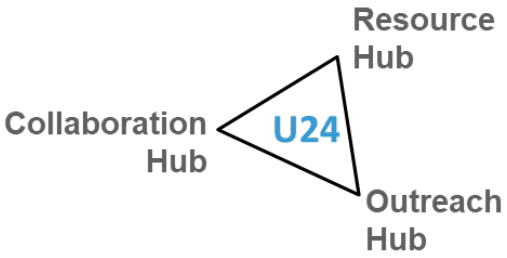


PHS 398 Research Plan

All instructions in the SF424 (R&R) Application Guide must be followed, with the following additional instructions:

Research Strategy: In lieu of the Standard sub-sections listed in the SF424 (R&R) Application Guide, the Research Strategy must consist of the following modified sub-sections.

Sub-section A: Overview and Significance

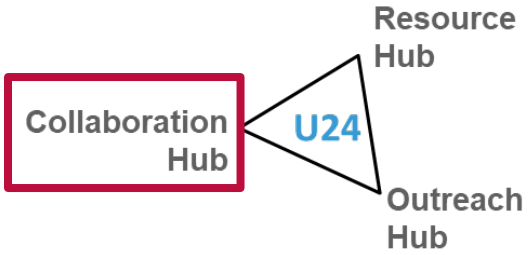
Provide an overview of the MC^2 Center vision by stating how the structure will enhance and facilitate the research of DCB-supported research programs. Specific aspects of the MC^2 Center that will lead to potential synergy among program members with respect to advancing knowledge of mechanisms underlying basic cancer biology should be especially highlighted. Additionally, applicants should:

- Describe how their organizational structure and concepts will utilize the experience of individual team members, especially with regards to breadth of knowledge of basic cancer biology, metastasis, cellular imaging technologies, bioengineering, patient-derived experimental model generation, cancer systems biology and/or physical oncology;
- State how, if applicable, existing or novel support from organizations outside the scope of this FOA (i.e., industry, foundations) might contribute to building each of the three required hubs.

NOTE: Applications that do not follow the required structure can be deemed non-responsive and not reviewed (per RFA-CA21-049)

Research Strategy

12 page limit – see FOA Part 2, Section IV



Sub-section B: Collaboration Hub

Leads the organization and execution of annual investigator and early-career investigator meetings for each program, as well as a broad range of activities to promote scientific interactions between investigators at all levels within and across programs.

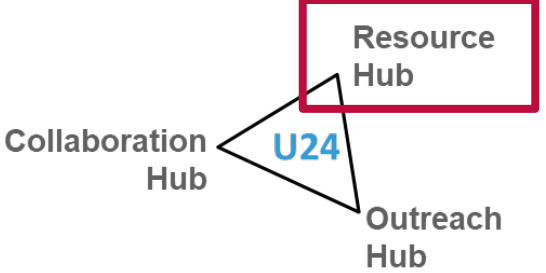
- *Facilitating collaboration across DCB research programs*
- *Enhancing diverse perspectives in cancer biology*

  Include a summary of strategies to **advance the scientific and technical merit of the proposed MC² Center through expanded inclusivity**. Strategies should provide a holistic and integrated view of how enhancing diverse perspectives is viewed and supported throughout the MC² Center, and can address elements related to significance, investigators, innovation, approach and environment, as appropriate.

- *Benchmarks of Hub performance*

Research Strategy

12 page limit – see FOA Part 2, Section IV



Sub-section C: Resource Coordinating Hub

Facilitates sharing of well-annotated resources and enhances discoverability and usability of DCB program data and resources. Note that DCB program investigators are expected to share data and resources via current NIH guidelines (which may change over the course of the MC^2 Center award).

- *Interactions with DCB Research Program Scientific Data Producers*
- *Data Wrangling*
- *MC^2 Center Portal*
- *Scientific Data and Resource Provenance*
- *Example Workflow*
- *Benchmarks of Hub Performance*

Key definitions:

Resources: …scientific data, experimental models, computational tools or models, mathematical models, software, experimental protocols, etc., generated by investigators within DCB programs and, potentially, by other related NCI-supported programs.

Scientific Data**:** …the recorded factual material commonly accepted in the scientific community as of sufficient quality to validate and replicate research findings, regardless of whether the data are used to support scholarly publications. Scientific data do not include laboratory notebooks, preliminary analyses, completed case report forms, drafts of scientific papers, plans for future research, peer reviews, communications with colleagues, or physical objects, such as laboratory specimens. **The MC^2 Center will be expected to coordinate annotation and deposition of scientific data generated by DCB research programs to NIH/NCI data commons resources.**

Definition consistent with NOT-OD-21-013 and the upcoming NIH Policy for Data Management and Sharing.

Key definitions, continued:

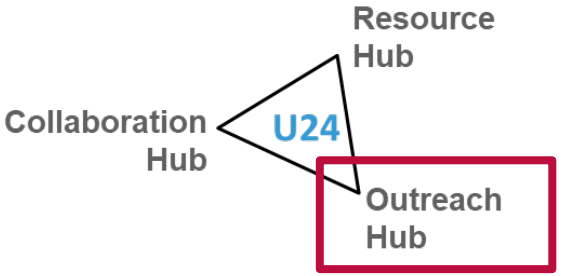
Experimental model: Any *in vitro*, *in vivo*, *ex vivo*, or *in situ* biospecimen or reagent utilized to generate data for the purpose of generating, testing, or validating biological hypotheses. **The MC^2 Center is not expected to create biobanking infrastructure for the collection, storage, and/or distribution of experimental models generated by DCB research programs.**

***Computational or mathematical model*:** A formalism executed *in silico* to understand relationships between variables or systems components in a quantitative or qualitative manner. **The MC^2 Center is expected to work with DCB research programs to make curated computational or mathematical models available to the scientific research community.**

***Curation*:** The verification of functionality of a resource and in the context of this FOA refers specifically to the application of computational or mathematical models, computational tools and/or software given a specific data set (most likely the data utilized in publication with the resource). **Key personnel of the MC^2 Center are expected to propose and execute methods of curation in collaboration with DCB research programs.**

Research Strategy

12 page limit – see FOA Part 2, Section IV



Sub-section D: Outreach Hub

Leads and coordinates activities spanning DCB program members and serves as a central information source for education and outreach activities.

- *Dissemination of curated computational and mathematical models, tools, and software*
- *Coordination of Education and Outreach activities*
- *Benchmarks of Hub performance*

Required MC^2 Center Expertise

From RFA-CA21-049:

Applicants for the MC^2 Center need to have **sufficiently broad scientific expertise** in the field of cancer research, including relevant aspects of bioinformatics and computational biology, that would allow them to play a leadership role in fulfilling the scientific objectives of the various DCB research programs assigned for coordination.

PD(s)/PI(s) on applications or awards within DCB programs (CSBC, PS-ON, TEC, MetNet, CCBIR, or PDMC) may also serve as PDs/PIs on applications for the MC^2 Center award.

MC^2 Center Budget

Maximum of $1,200,000 (DC), excluding 3rd party F&A costs.
The following must be accounted for within the MC^2 Center budget:

Collaboration Hub:

- A budget for coordination and organization of the Annual Investigator Meeting for each program, including such costs as meeting venue, meeting materials, and travel for the U24 PD(s)/PI(s). Estimate a 2-3 days meeting / program / year.
- At least one dedicated, full-time program manager to serve as the main point of contact between the MC^2 Center, DCB program investigators, and NCI Program Staff.

Resource Coordinating Hub:

- Dedicated staff within the Resource Coordinating Hub to support data labeling and wrangling services for DCB research program investigators. It is expected that the budget for these staff will increase over the course of the award as data labeling and deposition demands increase.

Outreach Hub:

- If engagement of patients or patient advocate activities is proposed, funds must be included to support their efforts.

NIH policies to be aware of while preparing your application:

1. **Hyperlinks are not allowed in NIH grant applications**
   - See https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-174.html for more information.

2. **Guidance on constructing a NIH Biosketch.**
   - See https://grants.nih.gov/grants/guide/notice-files/NOT-OD-21-073.html for general information and tools -- including instructions and a sample.
   - FAQs: http://grants.nih.gov/grants/policy/faq_biosketches.htm

3. **Post-submission materials will be accepted 30 days prior to review per: https://grants.nih.gov/grants/guide/notice-files/NOT-OD-21-179.html**

Key Dates

	Pre-Application Webinar	Letters of Intent Due Date	Application Due Date	Review Date	Earliest Anticipated Start Date
	September 13, 2021	Oct 15, 2021	Nov 12, 2021	March 2022	July 2022

Letter of Intent (LOI)

Due date: **October 15, 2021**

Highly encouraged, but not required

Standard elements:

- Descriptive title
- Name(s), address(es), telephone number(s) of the PD(s)/PI(s)
- Names of other key personnel
- Participating Institution(s)
- Number and title of funding opportunity

Additional recommended information:

- **Provide a brief (3-5 sentence) description of the overall Coordinating Center structure**
- **Include relevant expertise and Keywords**

Application Review Information

- Read the review criteria – they are NOT the same as for regular research projects
- Also, consider the **FOA-specific review criteria** defined in Part 2, Section V
- Individual Criterion Scores include those for:
  - Significance
  - Investigator(s)
  - Innovation
  - Approach
  - Environment

Application Review Information

- Applicants are encouraged to include a cover letter with their application to aid in a fair and accurate review of the proposal. Potential conflicts of interest may be included in this letter.
- The study section roster will be available online 30 days prior to review. Applicants may contact the Scientific Review Officer with concerns prior to review.

Collaboration Hub

Approach
Specific to this FOA: How well does the research plan address the MC^2 Center's three hubs: (1) ~~Data Coordination Hub~~; (2) Resource Coordination Hub; and (3) Outreach Hub? How will the diversity and inclusivity activities proposed by the MC^2 Center contribute to the scientific goals of the DCB Programs that it serves?

Contact Information

Scientific/Research Contact(s):

Hannah Dueck
Division of Cancer Biology
hannah.dueck@nih.gov

Shannon Hughes
Division of Cancer Biology
shannon.hughes@nih.gov

Peer Review Contact:

NCI Referral Officer
240-276-6390
ncirefof@dea.nci.nih.gov

Financial/Grants Management Contact:

Amy Bartosch
240-276-6912
bartoschar@mail.nih.gov

Slides from this webinar will be available on the Division of Cancer Biology website:

https://www.cancer.gov/dcb

https://www.cancer.gov/about-nci/organization/dcb

https://www.cancer.gov/about-nci/organization/dcb/news