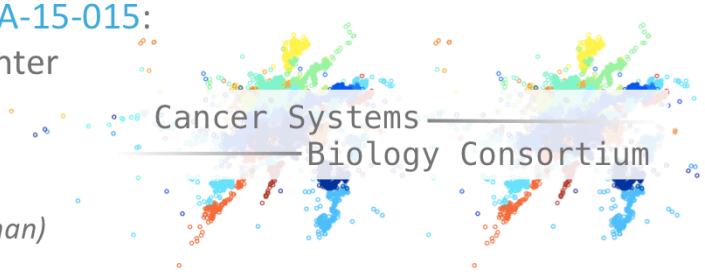
Pre-application webinar for RFA-CA-15-015:
U24 CSBC/PS-ON Coordinating Center



Agenda:

1. *Begin presentation at 3:05 EST*
2. *Welcome and Introduction (Dan Gallahan)*
3. *RFA Presentation (Shannon Hughes)*
4. *Q&A*

Audio for webinar:
1-240-276-6338
Meeting access number:
731 301 958
Note: meeting audio is being recorded

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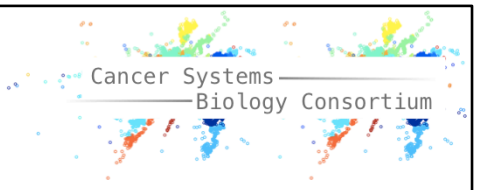
October 1, 2015

The slides for this pre-application webinar provide information about RFA-CA-15-015: "Coordinating Center for the Cancer Systems Biology Consortium and the Physical Sciences-Oncology Network (U24)".

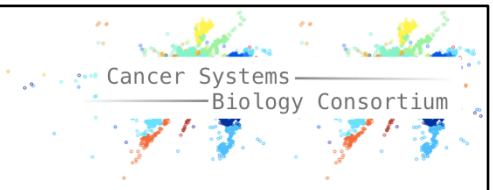
Overall goal of the Cancer Systems Biology Consortium (CSBC)



The CSBC is a community of systems biologists who aim to integrate experimental biology and computational models across multiple temporal and spatial scales towards a better understanding of cancer.

From the FOA:
Integrating around a team of multi-disciplined investigators, the CSBC Research Centers are expected to utilize the tools of systems biology to develop a comprehensive research program in cancer biology. Employment of novel computational tools and mathematical models should result in new mechanistic insights and hypotheses that are beyond the scope of normal intuition. Equally important is the validation or testing of the models in an appropriate biological setting. The CSBC initiative is intended to further the field of cancer systems biology.

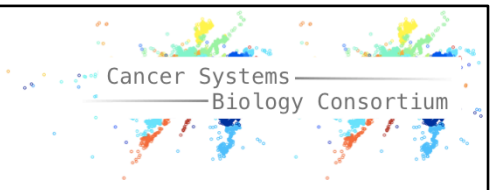
Systems Biology at NCI



- 10 years of the Integrative Cancer Biology Program (ICBP)
- 2014 - 2015 program evaluation
- New Initiative - Cancer Systems Biology Consortium (CSBC)
- Approved March 2015
- 2 New RFAs (U54 & U24) and 1 continuing PAR (U01)
- Consortium anticipated to include 8-10 U54 Centers and multiple U01 projects

The Integrative Cancer Biology Program (expired RFA-04-013 & expired RFA-09-011) encouraged the application of systems biology approaches to cancer research from 2005-2015. The Cancer Systems Biology Consortium continues NCI's broad support for cancer systems biology.

Physical Sciences at NCI



- 2009 inception of the Physical Sciences in Oncology Network (PS-ON)
- Recently renewed to promote physical science approaches to cancer research
- Current PS-ON includes U54 Research Centers (PS-OC) and U01 Research Projects (PS-OP)
- More information about the PS-ON: http://physics.cancer.gov
- See PAR-14-169 (U54) and PAR-15-021 (U01) for more information

Participants & Structure

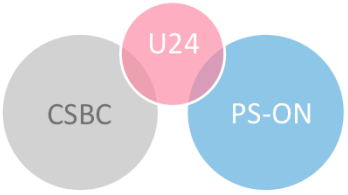
Cancer Systems Biology Consortium

U24 CSBC/PS-ON Coordinating Center (1)

U54 CSBC Research Centers (8-10) & Physical Sciences-Oncology Centers (5+)

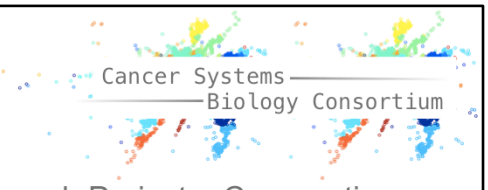
U01 Research Projects

- 7+ U01 Collaborative Research in Integrative Cancer Biology (PAR-13-184)
- 5+ U01 Bridging the Gap Between Cancer Mechanism and Population Science (PAR-13-081)
- 5+ U01 Physical Sciences-Oncology Projects (PAR-15-021)
- 12-15 (anticipated) U01 CSBC Research Projects (PAR, FOA Spring 2016)



The CSBC/PS-ON Coordinating Center will serve as the interface between the CSBC and PS-ON; both programs are part of the Division of Cancer Biology (DCB) at NCI.

Mechanism of Support & Funding:
CSBC/PS-ON U24 Coordinating Center



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

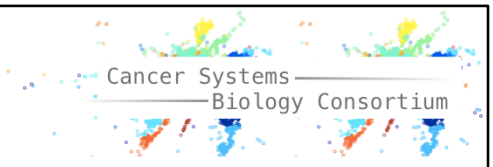
The purpose of the U24 mechanism is to support research projects contributing to improvement of the capability of resources to serve biomedical research.

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

Budget: Not to exceed **$750K per year (direct costs)**. *Cap is exclusive of 3rd party F&A costs.*

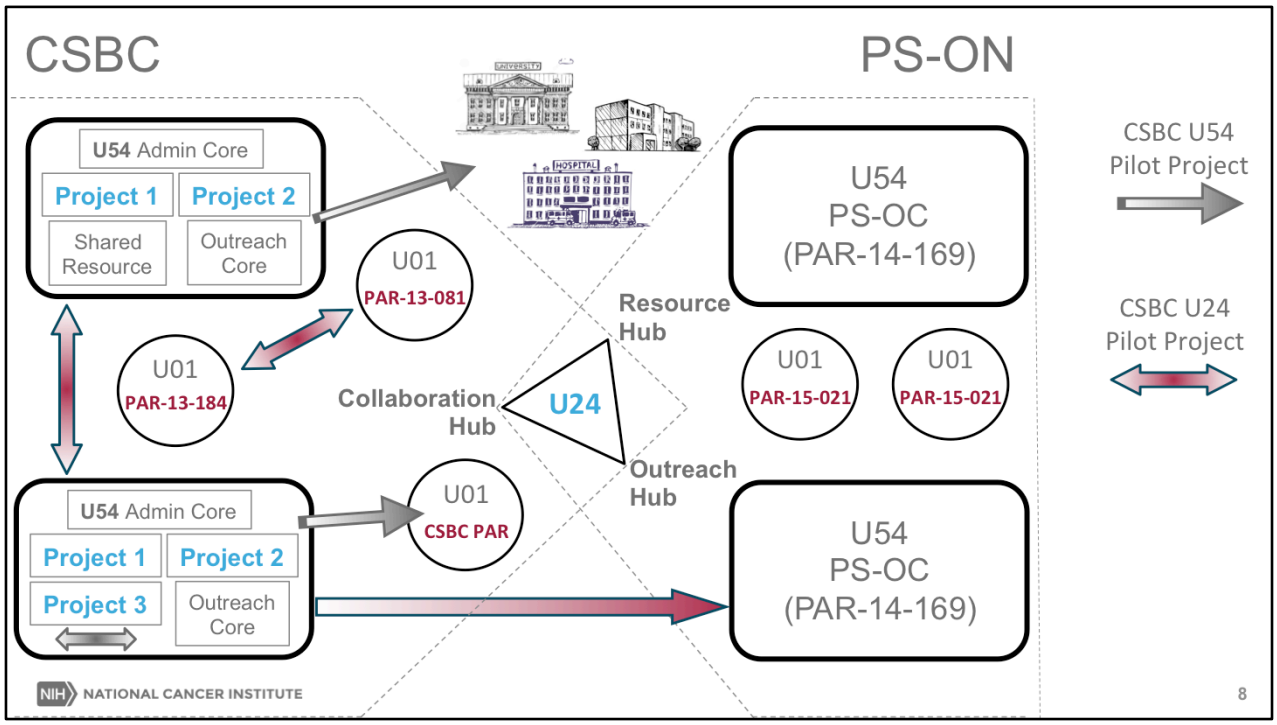
Project Period: Not to exceed **5 years**.

Overview of CSBC/PS-ON U24 Coordinating Center



Several activities will be coordinated through the U24 Center, which has three main "hubs":

- The Resource Coordinating Hub: A curated source of CSBC and PS-ON research output.
  - CSBC and PS-ON investigators (U54 and U01) are expected to share published data and models. Hub structure will be determined by U24 Awardee and NCI Program Officials.
- The Collaboration and Pilot Project Hub: Funds for CSBC-led research projects.
  - *Starting Year 2 of the U24 Award*, restricted funds are allocated to support CSBC-led research projects ("CSBC Pilot Project Fund"). Final approval of projects by CSBC Steering Committee & NCI. Budget details: $100K DC (Yr 2) and $300K DC (Yr 3-5).
- The Outreach Hub: Centralized resource for Outreach activities across the CSBC and PS-ON.
  - The Outreach Hub will coordinate activities that may span CSBC and PS-ON members (for example, summer research programs) and serve as a central information source.

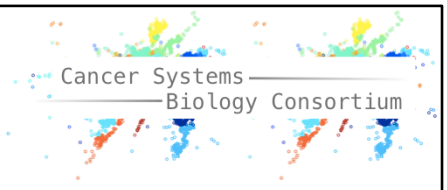


The overall structure of the Cancer Systems Biology Consortium (CSBC) and Physical Science-Oncology Network (PS-ON):

At the interface of the CSBC and the PS-ON is the U24 CSBC/PS-ON Coordinating Center. The Coordinating Center will have three 'hubs': the Resource Coordinating Hub, the Collaboration and Pilot Project Hub, and the Outreach Hub. The U24 Coordinating Center will provide opportunities for interactions between the CSBC and the PS-ON. Importantly, the U24 Coordinating Center budget includes a restricted fund for **CBSC-initiated** Pilot Projects (Red Arrows). These funds will be distributed after review by the CSBC Steering Committee and the NCI to promote pilot projects within the CSBC or between the CSBC and the PS-ON. On this diagram those projects are referred to collectively as "CSBC U24 Pilot Project". Note: the PS-ON has internal funds for PS-ON-initiated pilot projects that are not managed by the U24 Coordinating Center.

Within each CSBC U54 Research Center there must be at least $50K annually budgeted for "CSBC U54 Pilot Projects" (gray arrows) that may be utilized to promote collaboration within the Center or between the Center and an outside collaborator (two examples illustrated; one between a U54 Center and an outside organization; one between a U54 Center and a CSBC U01 Research Project). These funds are not managed by the U24 Coordinating Center.

CSBC/PS-ON U24 Center Expertise



From RFA-CA-15-015:

Leadership expertise: The CSBC/PS-ON Coordinating Center PD/PI ….. must be a scientist with **strong expertise in cancer systems biology, computational biology, or mathematical modeling techniques**.

Center expertise: Because of the *overlapping timing of the funding* of various CSBC and PS-ON research parts (including the CSBC U54 Research Centers), the Coordinating Center *must be able to accommodate a variable and broad scope of research* and related needs. Therefore, the CSBC/PS-ON Coordinating Center needs to have relatively **broad and flexible expertise and capabilities** in a **wide range of experimental and modeling approaches relevant to cancer systems biology and physical oncology**.

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This FOA is open to the multi-PI/PD mechanism. Per the Cooperative Agreement Terms and Conditions, the U24 Coordinating Center effort commitment requirements are as follows; for a single PD/PI, the effort commitment is 2.4 person-months per year; for multiple PD/PIs, the effort commitment is 1.2 person-months per year per PD/PI.

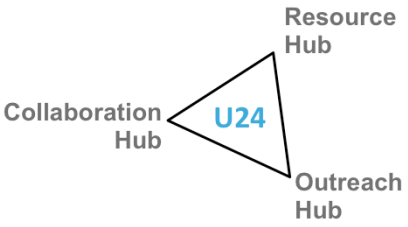
Research Strategy

12 page limit – see FOA Part 2, Section IV

Cancer Systems Biology Consortium

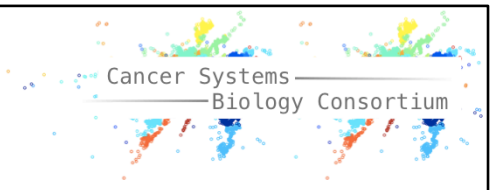
In lieu of the Standard sub-sections listed in the SF424 (R&R) Application Guide, the Research Strategy must consist of the following modified sub-sections:

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



Research Strategy

12 page limit – see FOA Part 2, Section IV



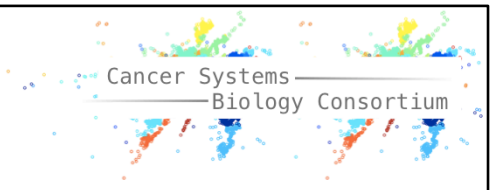
Sub-section A:

Overview and Significance

- Provide the Coordinating Center vision – how will the Coordinating Center hub structure enhance CSBC and PS-ON research.
- State aspects of the hub that lead to potential synergy among members.
- Describe how organizational structure will utilize the experience of individual team members, especially with regards to breadth of knowledge of cancer systems biology and physical science techniques.
- If applicable, describe existing or novel support from organizations outside the scope of this FOA (i.e. industry, foundations).

Research Strategy

12 page limit – see FOA Part 2, Section IV



Sub-section B:

The Resource Coordinating Hub

Note: In RFA-CA-15-015, the term "resource" relates to data, models, computational tools, etc.

There are two main goals of the Resource Coordinating Hub:

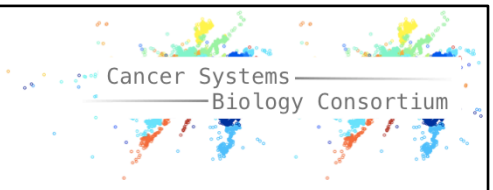
1. Create a website that represents the CSBC, interfaces with the PS-ON, and provides access to CSBC and PS-ON resources.
2. Build a curated, identifiable and easily-accessible resource bank of CSBC and PS-ON research output.

Resource Coordinating Hub Budget:

At least $500K (Yr 1); At least $400K (Yr 2); Up to $300K (Yrs 3-5)

Research Strategy

12 page limit – see FOA Part 2, Section IV



Sub-section B:

The Resource Coordinating Hub

2. Build a curated, identifiable and easily-accessible resource bank of CSBC and PS-ON research output.

Required: Data deposited to the Resource Coordinating Hub should be hosted on the NCI-supported web resource NCIP Hub (https://nciphub.org/) -- a platform for collaboration and sharing of data, tools, standards and other digital assets.

It is not a requirement of this FOA to host mathematical models or computational tools on NCIP Hub – *but they should be accessible through the Hub website*.

From the FOA:

- Data and model curation that provides the community with confidence that resources deposited in the Resource Coordinating Hub are employable by members of the CSBC and PS-ON. *Note*: In the context of this FOA the term "curation" is defined as the verification of functionality of a deposited resource and refers specifically to the application of mathematical models and/or computational tools given a specific data set (most likely the data utilized in publication with the resource).

Research Strategy

12 page limit – see FOA Part 2, Section IV

Cancer Systems Biology Consortium

Sub-section B:

The Resource Coordinating Hub

Required: Data deposited to the Resource Coordinating Hub should be hosted on the NCI-supported web resource NCIP Hub.

Data storage budget guidance:

Current NCIP Hub data storage cost:

- Initial set-up: $553/TB
- Yearly Maintenance: $2303/TB

Suggested storage projections:

- 15 TB (Yr 1)
- + 5 TB (Yr 2-5)

- Initial storage requirements are due to required migration of PS-ON data to the Resource Coordinating Hub.
- *In accordance with the required Genomic Data Sharing Policy, NIH-funded genomics data must be deposited in an NIH-approved data repository*. The Resource Coordinating center website should point to the location of CSBC and PS-ON genomic data.

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Information on the GDS Policy: https://gds.nih.gov/03policy2.html

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For more information about the approved repositories for genomic data, as defined by the NIH GDS Policy, please see: https://gds.nih.gov/02dr2.html. Two resources are likely to be of use for storing CSBC and PS-ON genomic data – GEO and SRA.

Research Strategy

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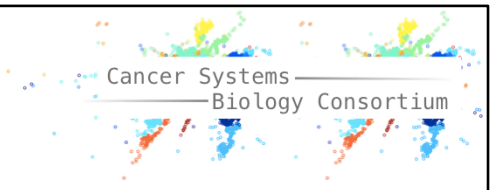


Sub-section B:

The Resource Coordinating Hub

What kind of data and models/computational tools can be expected?

Websites with representative data, models, and computational tools:

Integrative Cancer Biology Program: http://icbp.nci.nih.gov/resources

Physical Sciences-Oncology Network: http://physics.cancer.gov/data/

Applicable funding announcements:

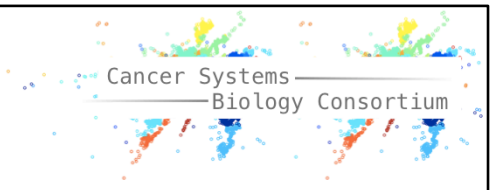
Integrative Cancer Biology Program: PAR-13-184, PAR-13-081, (expired) RFA-04-013 & RFA-09-011

Physical Sciences-Oncology Network: PAR-14-169, PAR-15-021, (expired) RFA-CA-09-009

Note: In addition to reading the FOAs, REPORTER can be searched to find information about approaches taken by past and current investigators.

Research Strategy

12 page limit – see FOA Part 2, Section IV



Sub-section C:

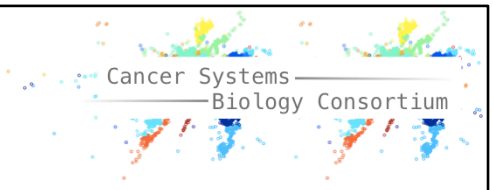
Collaboration and Pilot Project Hub

Two main aims of this hub:

1. Foster trans-network collaboration
   - **Required**: Planning and coordination of CSBC/PS-ON Annual Investigator Meeting. Note: budget should not include travel of CSBC and PS-ON investigators.
   - Describe other plans for activities to facilitate collaboration; state how they go beyond normal team-building activities. See non-exhaustive list of examples in FOA.
2. Management of CSBC Pilot Project Fund
   - Include a plan for solicitation, review, and prioritization of CSBC-led pilot project proposals. Final approval of projects by CSBC Steering Committee and NCI Program Officials.
   - **Budget for CSBC Pilot Project Fund: $0K (Yr 1), $100K DC (Yr 2) and $300K DC (Yr 3-5).**

Research Strategy

12 page limit – see FOA Part 2, Section IV



Sub-section D:

Outreach Hub

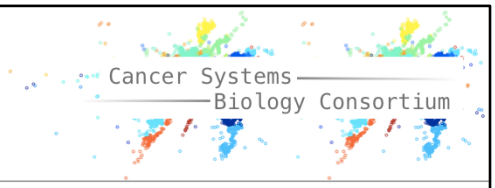
- Describe how the Outreach Hub will promote the advances of cancer systems biology and physical oncology research to the scientific and wider communities.
- **Required:** The Outreach Hub will publish a periodic newsletter to inform the scientific community about scientific advances in the CSBC and PS-ON.
- Describe other activities that might be appropriate for the trans-network Outreach Hub. Examples might include, but are not limited to:

  Summer Programs (ex. research opportunities for early stage investigators)

  Community Science Programs (ex. crowd-sourced systems biology competitions)

  Social Media Presence (ex. Twitter, Facebook or other)
- **Budget: $150K direct cost per year**.

R&R Budget



Maximum of $750,000 (DC).

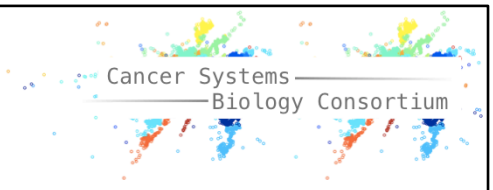
Resource Coordinating Hub:
Year 1: at least $500,000
Year 2: at least $400,000
Years 3-5: up to $300,000

Outreach Hub:
$150,000 each year

Collaboration and Pilot Project Hub:
Applicants must budget for organization of the CSBC/PS-ON Annual Investigator Meeting, including such costs as meeting venue, meeting materials, and travel for the U24 PD(s)/PI(s). *Note: do **NOT** include any travel costs for other CSBC or PS-ON investigators.*

Some funds will be restricted …. to support post-award trans-network pilot projects. These funds should be presented in the Other Direct Costs category under the heading "CSBC Pilot Project Fund" in the following amounts:
Year 1: $0
Year 2: $100,000
Years 3-5: at least $300,000

New NIH Biosketch required



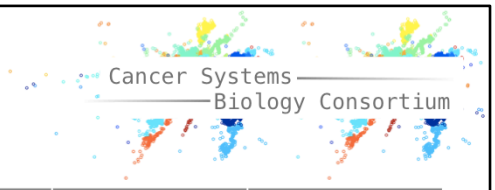
All research applications are required to utilize the new NIH Biosketch format:

See **NOT-OD-15-032** for general information and tools -- including instructions and a sample.

Frequently asked questions are addressed at:

http://grants.nih.gov/grants/policy/faq_biosketches.htm

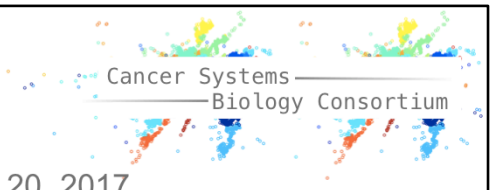
Key Dates



	Pre-Application Webinar	Letters of Intent Due Dates	Application Due Dates	Review Dates	Earliest Anticipated Start Dates
Round 1	September 30, 2015	Oct 20, 2015	Nov 20, 2015	Feb-Mar, 2016	July 2016
Round 2	TBD, estimated May 2016	Aug 9, 2016	Sept 9, 2016	Oct-Nov, 2016	March 2017 (?)
Round 3	TBD, estimated Jan 2017	Mar 20, 2017	April 20, 2017	June-July, 2017	Nov 2017 (?)

Please note: one CSBC/PS-ON U24 Coordinating Center award will be made. If there are remaining receipt dates after the issuance of the award, they will be cancelled.

Letter of Intent (LOI)



Due date: **October 20, 2015**; August 9, 2016; March 20, 2017

Highly encouraged, but not required

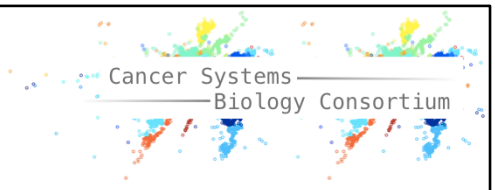
Standard elements:

- Descriptive title of CSBC/PS-ON Coordinating Center
- 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:

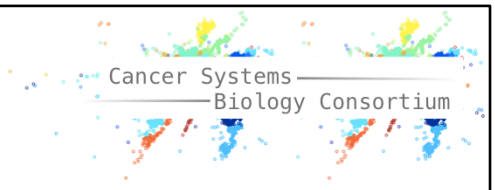
- **Provide a brief (3-5 sentence) description of the overall Coordinating Center structure**
- **Include relevant expertise and Keywords**

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

Contact Information



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Financial/Grants Management Contact:

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Slides from this webinar will be available on the Division of Cancer Biology website:
dcb.nci.nih.gov/News

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