

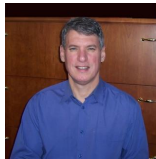
# **CCR Flex Award program - FY24 Virtual Town Hall, July 2023**



# CCR Science Board: September 2023 Roster



**Natasha  
Caplen (GB),  
Chair**



**Frank  
Gonzalez  
(CIL)**



**Stan  
Lipkowitz  
(WMB)**



**Ramaprasad  
Srinivasan  
(UOB)**



**Ken  
Aldape  
(LP)**



**Shuo  
Gu  
(RBL)**



**Dan  
McVicar  
(CIL)**



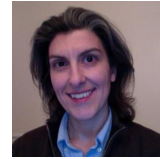
**Naomi  
Taylor  
(POB)**



**Grégoire  
Altan-Bonnet  
(LIC)**



**Sridhar  
Hannenhalli  
(CSDL)**



**Stavroula  
Mili  
(LCMB)**



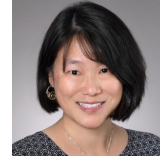
**Carol  
Thiele  
(POB)**



**Avinash  
Bhandoola  
(LGI)**



**Rosandra  
Kaplan  
(POB)**



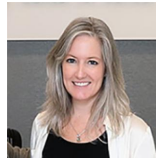
**Sung-Yun  
Pai  
(IDCTP)**



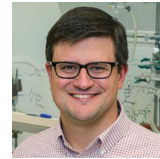
**Lalage  
Wakefield  
(LCBG)**



**John  
Brognard  
(LCDS)**



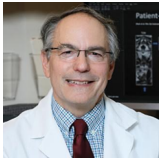
**Mary  
Kearney  
(HDR)**



**Jay  
Schneekloth  
(CBL)**



**Kylie  
Walters  
(CSB)**



**Peter  
Choyk  
(MIB)**



**David  
Levens  
(LP)**



**Martin  
Schnermann  
(CBL)**

**Diana  
Linnekin  
Executive  
Secretary (OD)**

# CCR Flex Program: Overview

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The CCR FLEX Program is an *intramural* funding mechanism

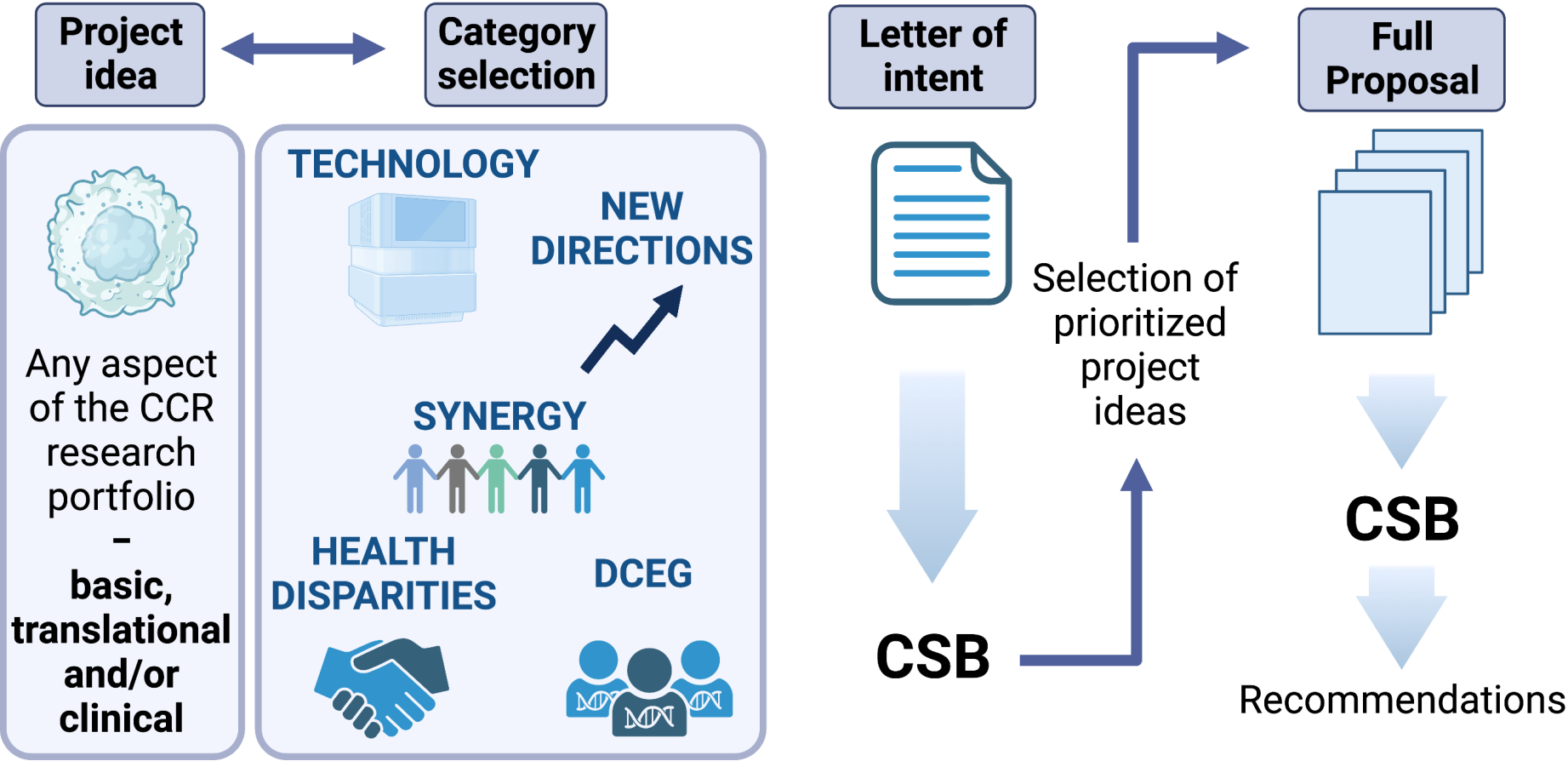
Facilitates the ability of CCR PIs to pursue **high-risk, high-impact** projects outside of a laboratory's base allocations

Aims to promote **all areas of cancer research**

Can cover any aspect of the CCR research portfolio  
– **basic, translational and/or clinical**

**The proposed work should generate groundbreaking advances of relevance to cancer research**

# CCR Flex Program: Overview



# Hallmarks of successful Flex projects

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- **Innovation and creativity**
- **High-impact results**
- **Clearly articulated milestones**
- **Time-limited:** Typically up to 3 years
- **Highly selective:** Average of 39 applicants per year  
~20% funded per year (~7 per year)

A list of projects that have been funded through the FLEX Program can be found at this URL

<https://ccrod.cancer.gov/confluence/display/OSD/FLEX+FUNDING?preview=/111542623/285049630/FLEX%20AWARD%20Summary%202015-2023%20.docx>

Further details about highlighted projects can be found at this URL

<https://ccrod.cancer.gov/confluence/display/OSD/Selected+Highlights+of+Previous+FLEX+Awards.>

(More examples to come in 2024)

## Flex Program: Who can apply

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The primary PI for the proposed work in each award category must be a **tenure-track investigator, tenured PI, senior clinician, or senior scientist in CCR**

Those in the **Physician-Scientist Early Investigator (PEI)** program can apply but **must include a tenured PI as a co-PI**

**Site-visited Staff Scientists** who have independent budgets (CANs) are also eligible

Non-NCI researchers can collaborate on a project or be a co-PI but cannot receive funds

PIs from DCEG can serve as funded co-PIs on the **Health Disparities and CCR-DCEG Collaborative Awards**

# Five Award Categories

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- **CCR Technology Development Awards**: Development of ground-breaking new methods and technology in the PI's laboratory
- **CCR Synergy Awards** Formation of research teams to perform high-impact collaborative projects relevant to cancer
- **CCR New Directions Awards** Pursuit of studies with the potential to lead to groundbreaking advances beyond the investigator's immediate field and with relevance to the broader biomedical cancer community
- **CCR Health Disparity Awards**: Any research area as defined by the [NCI Center to Reduce Cancer Health Disparities](#)  
**Basic, clinical, translational, and epidemiological approaches** aimed at understanding and reducing any type of cancer health disparity, including **determinants of health disparities and improvements in health outcomes**
- **CCR-DCEG Collaborative Awards**: Integrative research that builds on DCEG expertise in population-based epidemiology and CCR expertise in basic biology and clinical research

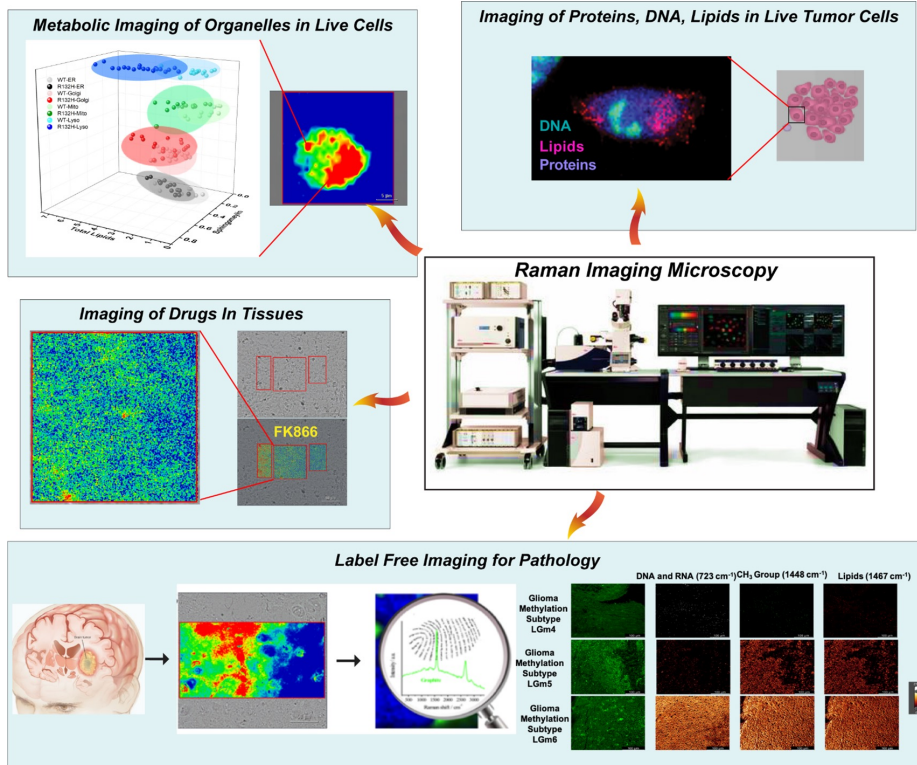
## General considerations

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- Irrespective of FLEX Award category, projects considered to have **a sustained, powerful influence on a research field or fields will be given highest priority**
- The **innovation, significance** (potential impact), and **approach** will be evaluated for each project
- ***Feasibility:*** The inclusion of preliminary data to demonstrate feasibility of the proposed research is encouraged, but not required
- Funds are to cover personnel and supply costs  
A detailed budget is required to justify the requested funds



# Technology Development Awards



Mioara Larion (NOB) was the lead PI for a Technology Development award in 2017 entitled “Live Cell Metabolism via Raman Imaging Microscopy”

<https://ccrod.cancer.gov/confluence/display/OSD/Selected+Highlights+of+Previous+FLEX+Awards>

# Technology Development Awards

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The development of **ground-breaking new methods and technology in the PI's laboratory**

**Any area of biomedicine relevant to cancer** - basic research tools to clinical technology

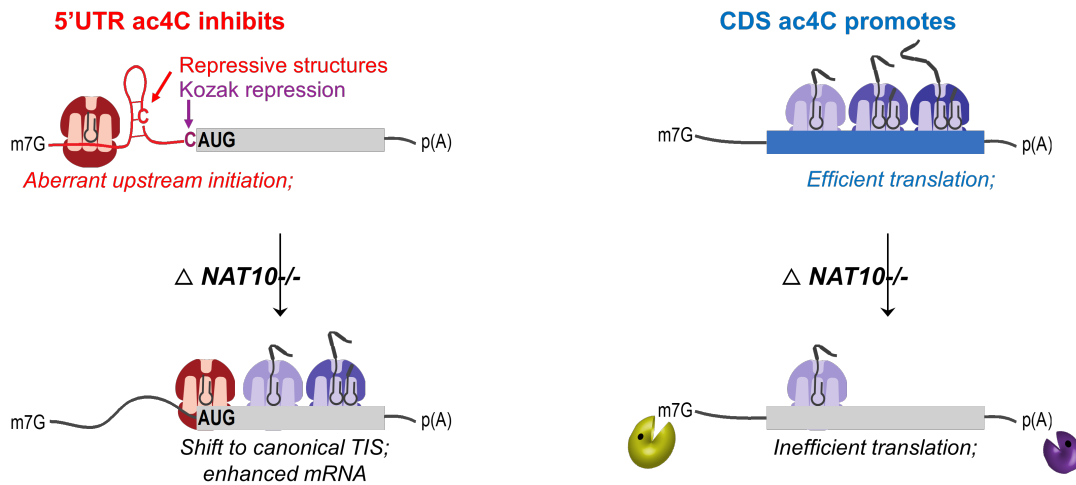
Funds for three years and up to \$125,000 per year (personnel and supply costs)

***The proposal should highlight:***

- How the project will lead to development of transformational new technologies for application in any area of basic research
- **or** high-impact diagnostic or prognostic methods
- **or** ground-breaking clinical technology

# New Directions Awards

## mRNA Acetylation Modulates Translation Initiation and Elongation



**Shalini Oberdoerffer (LRBGE)**  
– lead PI for a  
**New Directions award**  
in 2015 entitled  
**“Metabolic Regulation of the  
Epitranscriptome”**

<https://ccrod.cancer.gov/confluence/display/OSD/Selected+Highlights+of+Previous+FLEX+Awards>

# New Directions Awards

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**High potential of leading to groundbreaking advances beyond an investigators immediate field and of importance to the broader biomedical cancer research community**

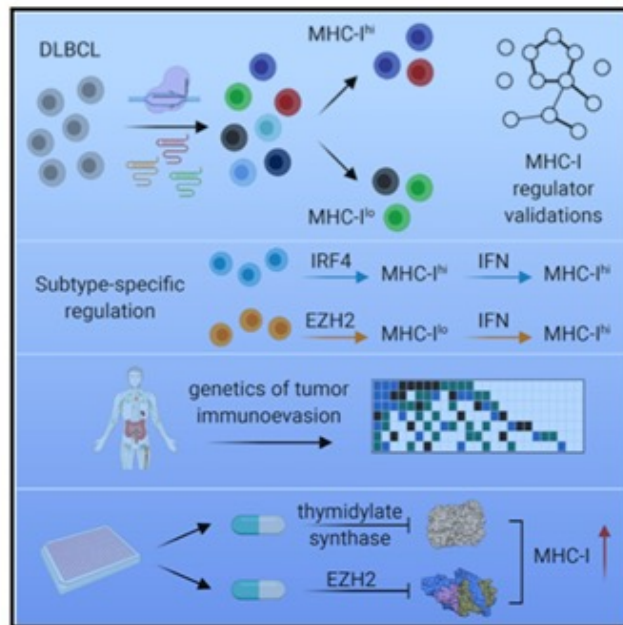
**Projects must represent a significant divergence from the PI's research focus**

**The proposal must clearly define the distinct nature of the project either in concept, or method from the PI's core program**

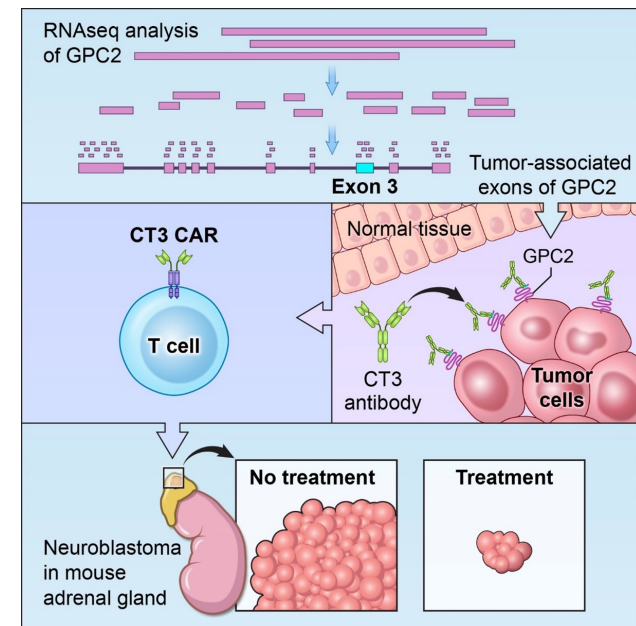
Funds for three years and up to \$125,000 per year  
(personnel and supply costs)

# Synergy Awards

Lou Staudt (Lymphoid Malignancies Branch) was the primary PI for a 2017 Synergy Award – “New Frontiers in Cancer Cell Antigen Processing and Immune



Brad St. Croix (MCGP), Mitchell Ho (LMB), Javed Khan (GB) PIs for a 2018 Synergy Award – “Optimized Immunotherapeutic Targeting of Neuroblastoma”



# Synergy Awards: Overview

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Research teams that will perform **high-impact collaborative research projects relevant to cancer**

**Projects may focus on any aspect of cancer research in the basic and/or translational and/or clinical spectrum**

Each Team must have **at least two Principal Investigators** with clearly **distinct and/or complementary expertise**

The lead PI must be a CCR PI

- Funding for 3 years at a maximum of \$375,000/year
- Possibility of a maximum 2-year extension (a very high bar)

## Synergy Awards: Award Specific Criteria

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**The team members must contribute expertise in complementary areas or methodologies**

Projects involving clinical work must include a clinician with the appropriate expertise on the team

The proposal should clearly demonstrate the distinctiveness of the proposed work from ongoing studies in the labs of the PIs

***The proposal should highlight:*** How each team member's expertise will contribute to the project, along with precise plans for how the team will work together, including the mentoring of trainees

# Health Disparities Awards

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CCR/NCI has made cancer health disparity a research priority

Proposals may cover any area of cancer health disparity as defined by the [NCI Center to Reduce Cancer Health Disparities](#), including study of the **determinants of health disparities and approaches to improving health equity**

## A 2023 Award

**James Gulley and colleagues:** “A Phase I Trial of Adoptive T cell Therapy in Patients with HIV and HPV-Associated Cancer: Extending a Promising Therapy to Underrepresented Groups”

<https://ccrod.cancer.gov/confluence/display/OSD/FLEX+FUNDING?preview=/111542623/285049630/FLEX%20AWARD%20Summary%202015-2023%20.docx>



# Health Disparities Awards

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- Individual investigators or teams of PIs are eligible to apply  
The lead PI must be from CCR
- Only CCR and DCEG PIs are eligible to receive funding
- Team projects - a maximum of 3 CCR/DCEG PIs receive funding
- Teams may include PIs from other NIH ICs or the extramural community
- Collaboration with historically black colleges, as well as universities or other academic centers that have strong health disparity-related research programs is encouraged
- ***The proposal should indicate:*** How the project will lead to significant new insights into cancer-related biological, social, or health care delivery problems or lead to the development of new diagnostic, prognostic, therapeutic approaches, or other interventions targeted at improving cancer outcomes in underserved or other disadvantaged population groups

Funding to cover personnel and supply costs will be provided for 3 years

This includes up to \$125,000 per year per CCR PI (maximum of 3)

DCEG co-PIs can receive up to \$85,000 per year (maximum of 1)

# CCR-DCEG Awards

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Joint CCR-DCEG research teams performing **integrative studies** that take advantage of the expertise in **population-based epidemiological studies** present in the DCEG **and the basic biology and clinical expertise** in CCR

Each team will consist of **at least one PI, each from CCR and DCEG with clearly distinct and/or complementary expertise**

## A 2022 Award

Chongyi Chen (CCR), Jiyeon Choi (DCEG), Maria Landi (DCEG), Tongwu Zhang (DCEG)  
“Study of tumor evolution and cell-of-origin of lung cancer in never-smokers by single-cell sequencing”

## A 2021 Award

Efsun Arda (CCR) and Laufey Amundadottir (DCEG)  
“Characterizing cell type resolved effects of genetic variation on pancreas cancer risk”

## CCR-DCEG Collaborative Awards

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Joint CCR-DCEG research teams performing integrative studies that take advantage of the expertise in population-based epidemiological studies present in the DCEG and the basic biology and clinical expertise in CCR,

A team should consist of at least one PI each from CCR and DCEG with clearly distinct and/or complementary expertise

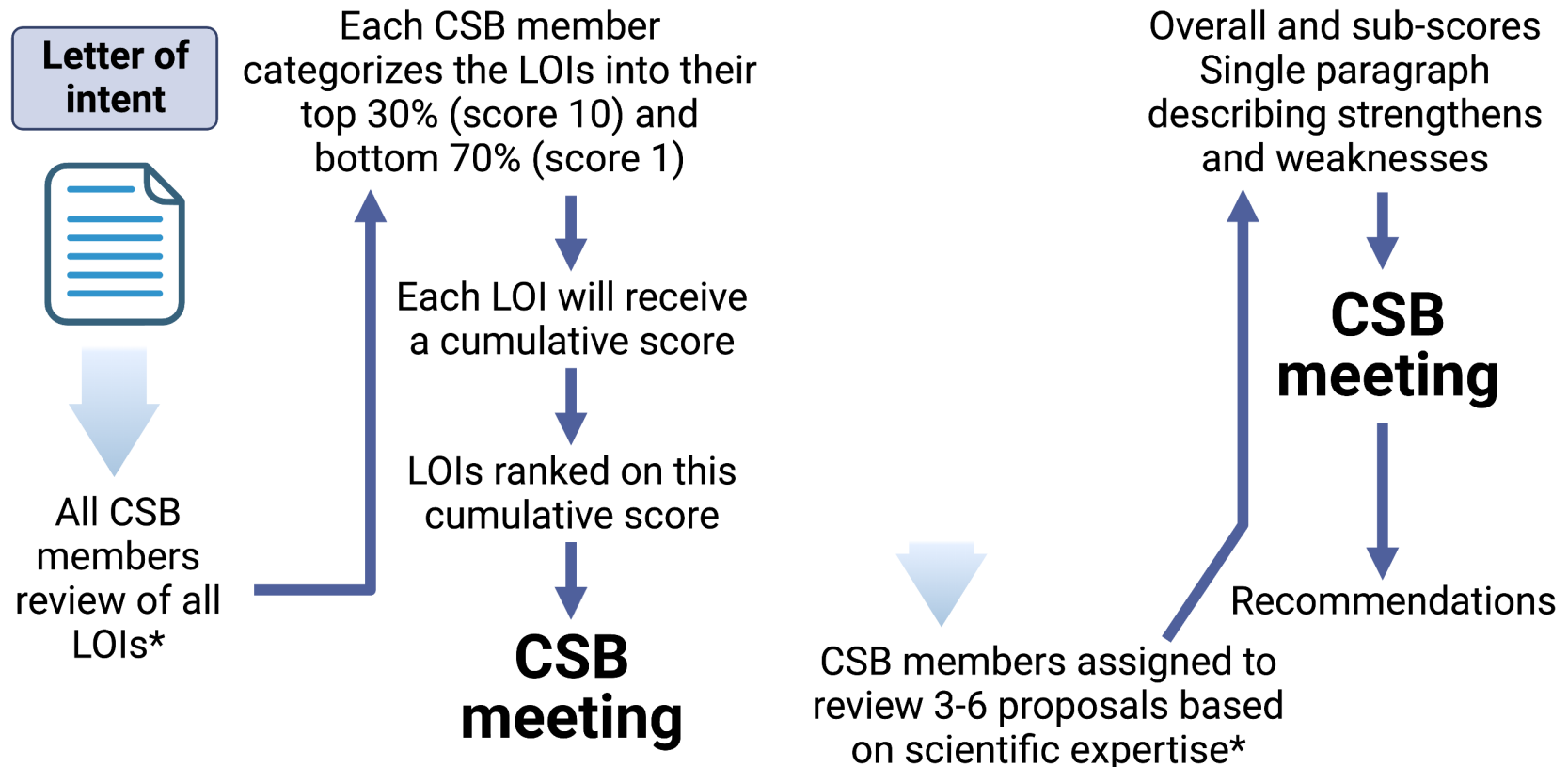
Funding will be provided for three years

CCR PIs will receive up to \$125,000 per year

DCEG PIs up to \$85,000 per year

***The proposal should highlight*** how the expertise of the CCR and DCEG investigators complementary and how the proposed work takes full advantage of the unique resources in the two divisions

# Review criteria and process



\*Conflicts of Interest: CSB members cannot review applications from their Branch/Laboratory  
CSB members applying for a Flex Award are excluded from that year's review process

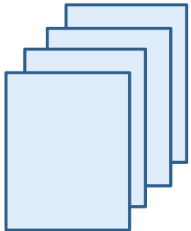
\*\*DCEG will also contribute to the selection/review of LOIs/Full proposals including their Investigators

# Review criteria

Letter of  
intent



Full  
Proposal



## General Review Criteria

*Projects felt to be high impact* will be given highest priority. This means that if successful, *the work is likely* to have a sustained, powerful influence on the proposed research field(s).

For all the Award categories except the New Directions, the proposed work can be related to ongoing work in the PI's lab however the project must be distinct from that work.

For the New Directions Award, the project must be a significant departure from ongoing work.

**In addition, the following criteria will be assessed for each project:**

### ***Innovation***

### ***Significance***

- Does the project have the potential to address a significant question related to cancer research?

### ***Rationale and Approach***

- Does the proposed work **employ appropriate research approaches**?
- Are the **specific aims independent of each other** but is the overall **proposal cohesive**?
- Has there been discussion of the use of **alternative approaches**?  
This is important given that the project must also propose high-risk, high-impact research

### ***Milestones***

- The proposal should list clearly **defined milestones** and identify at least annual **go/no-go decision points**

### ***Award-specific Criteria***

- Please look carefully at the information relating to the **award category** to make sure the LOI/Proposal addresses **all the necessary criteria**

# Flex Award Program: Letter of intent

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**Title Page** (not included in the 2-page limit)

- a. **Project Title**
- b. **Award Category**
- c. **Project Team** - List team members noting role of each  
Possibilities are Lead PI, Co-PI, Collaborator, Trainee
- d. **Significance Statement:** A maximum of 200 words  
Must include how the project is relevant to cancer research

## **PROJECT NARRATIVE (2-page limit)**

**Project Description**

**Specific Aims**

**Impact Statement:** Must address how this is a high risk/high impact project

**Award-Specific Statement**

**References** (optional, do not count towards 2-page limit)

# Flex Award Program: Full proposals

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**Title Page** (not included in the 4-page limit)

- a. **Project Title**
- b. **Award Category**
- c. **Project Team** - List team members noting role of each  
Possibilities are Lead PI, Co-PI, Collaborator, Trainee
- d. **Significance Statement:** A maximum of 200 words  
Must include how the project is relevant to cancer research

## **PROJECT NARRATIVE (4-page limit)**

**Project Description**

**Specific Aims**

**Impact Statement:** Must address how this is a high risk/high impact project

**Award-Specific Statement:**

**References** (optional, do not count towards 4-page limit)

# Flex Awards: Pros and Cons

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## Positives

Ability to do a high impact project not possible with the base budget

Exploration of new ideas

Collaborative opportunities

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Experience

Potential for scientific feedback

## Negatives

Dilution of principal research effort

A distraction

Funding is for three years

- implications for personnel slots

Stressful



# Flex Award Program : Important Deadlines

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## Important Deadlines

**July 25, 2023:** Submission of FLEX Award LOIs opens.

**September 11, 2023:** Submission of FLEX Award LOIs closes 11:59 pm.

**End of October 2023:** Applicants informed of the status of LOIs.

**December 13, 2023:** Submission of FLEX Award Full proposals closes  
11:59 pm

# Flex Award Program : Website links

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## Overview

<https://ccrod.cancer.gov/confluence/display/OSD/FLEX+Program+Application+Process>

## Award-specific descriptions

<https://ccrod.cancer.gov/confluence/display/OSD/CCR+Technology+Development+Award>

<https://ccrod.cancer.gov/confluence/display/OSD/CCR+Synergy+Award>

<https://ccrod.cancer.gov/confluence/display/OSD/CCR+New+Directions+Award>

<https://ccrod.cancer.gov/confluence/display/OSD/CCR-DCEG+Collaborative+Award>

<https://ccrod.cancer.gov/confluence/display/OSD/CCR+Health+Disparity+Award>

## FAQs

<https://ccrod.cancer.gov/confluence/display/OSD/FAQs>

# Questions