

NCI Division of Cancer Biology R15 Investigator Workshop

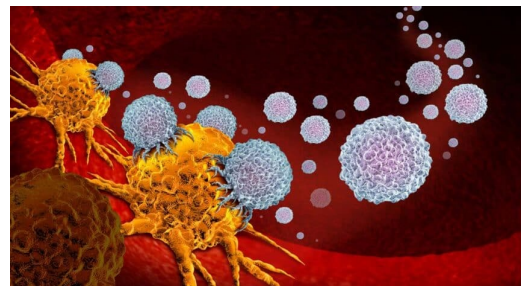
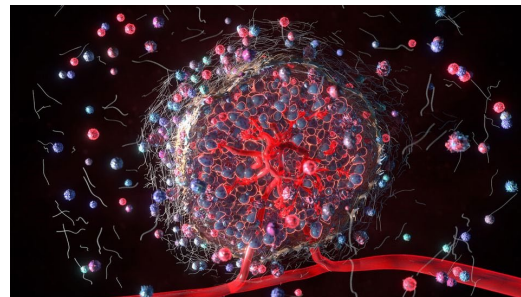
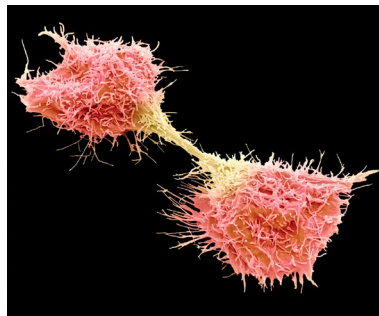
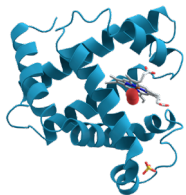
June 26 – 28, 2024



Overview of Funding Opportunities in Cancer Biology

Eric Johnson Chavarria, Ph.D.
Program Director, Division of Cancer Biology, NCI
Twitter: [@NCICancerBio](#)
<https://www.cancer.gov/about-nci/organization/dcb>

The Division of Cancer Biology (DCB) Covers Research Across the Cancer Spectrum and Biological Scales



Molecular

Cellular

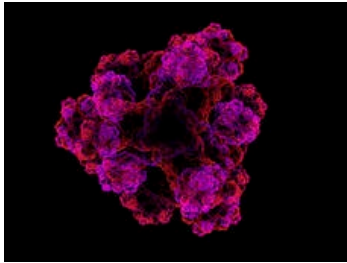
Microenvironment

Organelle

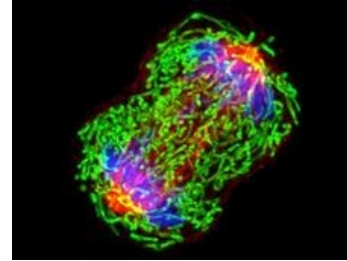
Tumor

Organ Systems

DCB Covers Research Across the Cancer Spectrum and Biological Scales



**Biophysics,
Bioengineering, and
Computational
Sciences Research**



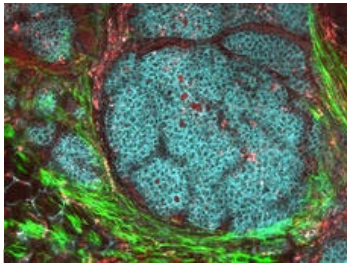
**Cell Biology
Research**



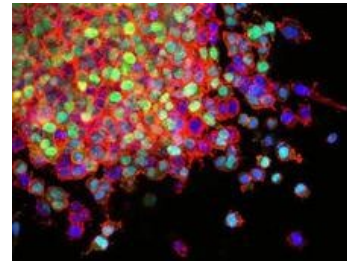
**Cancer Immunology,
Hematology, and
Etiology Research**



**DNA and
Chromosome
Aberrations
Research**



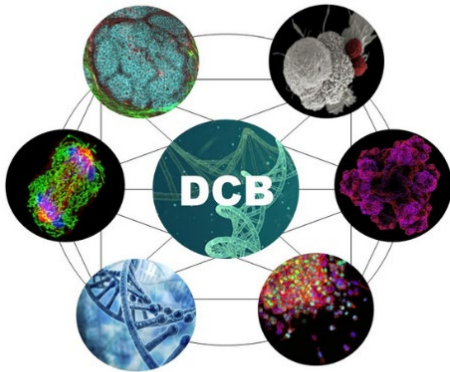
**Tumor Biology and
Microenvironment
Research**



**Tumor Metastasis
Research**

Current NCI Funding Opportunities in Cancer Biology

Notices of Funding Opportunities (NOFOs) supported by the NCI Division of Cancer Biology can be found at [cancer.gov/dcb](https://www.cancer.gov/dcb)



Funding Opportunities in Collaboration with CCHE (CRCHD)

PAR-22-114: Administrative
Supplements to Support Cancer
Disparity Collaborative Research



NOFOs and
Fact sheets

PAR-24-039: Exploratory Grant
Award to Promote Workforce
Diversity in Basic Cancer Research
(R21 Clinical Trial Not Allowed)

**Basic Research in Cancer Health
Disparities (R01, R21, and R03)**
TBD... stay tuned!



Funding Opportunities Related to Diet and Metabolism

PAR-23-051 & PAR-23-052:
Mechanistic links between diet, lipid metabolism, and tumor growth and progression (UH2 & U01)

Support fundamental investigations of the links between diet, lipid metabolism, and tumor growth/progression.



Kris Willis
(Kristine.Willis@nih.gov)



Natalia Mercer
(Natalia.Mercer@nih.gov)

Funding Opportunities Related to Diet and Metabolism (cont'd)

PAR-23-279 & PAR-23-280:
Mechanisms that Impact Cancer Risk with Use of Incretin Mimetics (R01 & R21)

Support studies addressing mechanisms by which mechanisms by which incretin mimetics, specifically glucagon-like peptide (GLP)-1 or dual GLP-1/glucose-dependent insulintropic polypeptide (GIP)-1 receptor agonists, impact cancer risk.

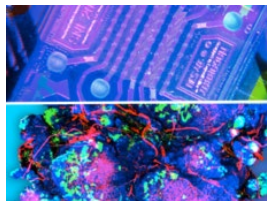
NOT-CA-21-121 (NOSI):
Dietary effects on nutrient sensing pathways in tumor etiology and prevention

Supports basic research investigating the biology and molecular mechanisms that determine the outcome of key diet/nutrient/cell interactions during early tumor development.



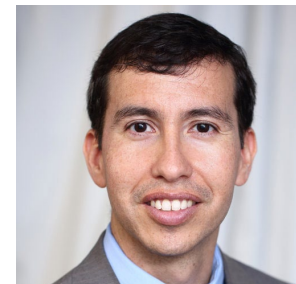
Phil Daschner
(daschnep@mail.nih.gov)

Funding Opportunities Related to Physical Sciences, Engineering, and Biomaterials



PAR-22-099: *Cancer Tissue Engineering Collaborative - Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research (R01)*

Supports the development and characterization of state-of-the-art biomimetic tissue-engineered technologies for cancer research, which will be a part of **Cancer TEC**.

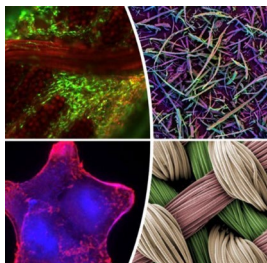


Steven Becker
(steven.becker@nih.gov)



PAR-22-147: *Research Projects in Physical Sciences-Oncology (U01)*

Supports research projects addressing challenging problems in cancer using a physical science framework, perspective, or approach, which will be a part of the **Physical Sciences – Oncology Network (PS-ON)**.



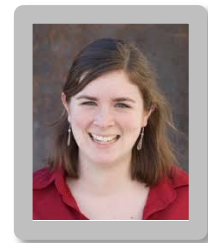
NOT-CA-23-030 (NOSI): *Adaptive Biomaterials for Cancer Biology*

Support research focusing on the development, adaptation, or integration of innovative biomaterials for cancer biology.



Eric Johnson Chavarria
(eric.johnsonchavarria@nih.gov)

Innovative Molecular Analysis Technologies (IMAT) Program (NCI specific program)



Director of IMAT program:
Kelly Crotty, Ph.D.

Mission: Catalyze multidisciplinary development of highly innovative technologies to grapple with the complexity of cancer biology and to create new possibilities for the fight against cancer.



Protein analysis

New approaches for single-cell proteomics
Process certain types of enzymes/proteins
Purify and analyze protein complexes of interest



DNA/RNA technologies

Microfluidics for single-cell sequencing
Identify extremely rare mutations
Epigenetic screening



Imaging tools

Identify tumor margins during surgery
Epigenetic detection and tracking
Longitudinal, multi-scale microscopy



Synthetic Biology

Precision control of gene expression
Targeted protein degradation

R61 - \$150k/year, 3 years: [RFA-CA-24-008](#)

R33 - \$300k/year, 3 years: [RFA-CA-24-009](#)

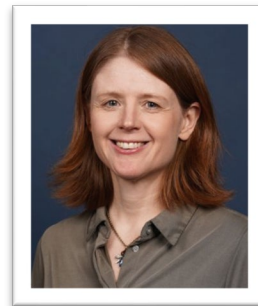
<https://imat.cancer.gov/>

The Informatics Technology for Cancer Research (ITCR) Program (NCI specific program)

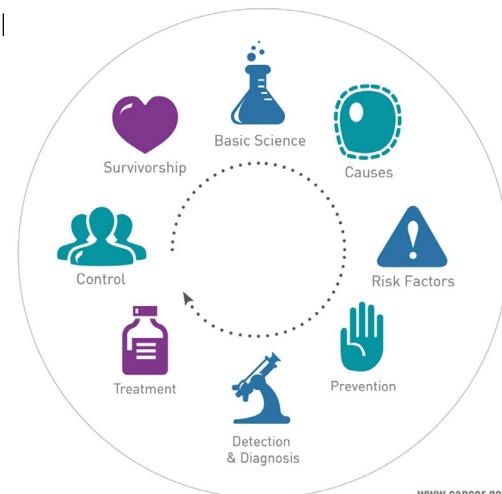
Mission: *ITCR is a trans-NCI program to support investigator-initiated informatics technology development driven by critical needs in cancer research.*

- ❑ Support informatics technology development driven by cancer research
- ❑ Develop open-source, interoperable software tools and resources
- ❑ Promote broad dissemination of user-friendly resources

[itcr.cancer.gov](https://www.cancer.gov/itcr)



Director of ITCR program:
Juli Klemm, Ph.D.



www.cancer.gov

<https://www.cancer.gov/about-nci/organization/cssi/resources/informatics-tools>

Funding Opportunities Related to Cancer Immunology

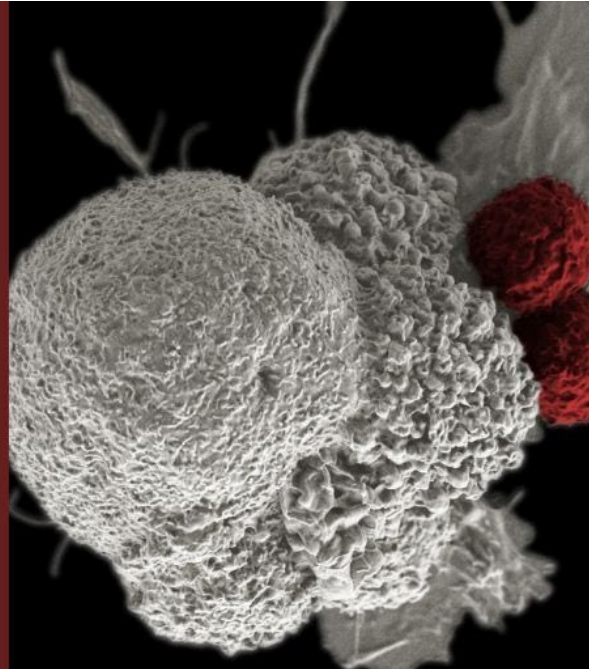
Notice of Funding Opportunity

NOT-CA-24-016

Notice of Special Interest (NOSI):
Exploratory Cancer Immunology Projects
and Technologies (ExCITE)

NCI Contact

Monica Zamisch
monica.zamisch@nih.gov



Monica Zamisch
(monica.zamisch@nih.gov)

Funding Opportunities Related to Cancer Immunology (cont'd)

**PAR-22-061 & PAR-22-062:
*Modulating Human Microbiome Function to Enhance Immune Responses Against Cancer (R01 & R21)***

Support basic research that elucidates mechanisms by which the microbiome inhibits or enhances anti-tumor immune responses and identifies targets for cancer prevention strategies.

**PAR-22-085 & PAR-22-086
*Microbial-based Cancer Imaging and Therapy -Bugs as Drugs (R01 & R21)***

Support research investigating novel microbial-based cancer therapy, imaging detection, and diagnosis strategies to overcome the limitations of inadequate conventional cancer imaging and therapies.

**NOT-CA-22-063 (NOSI):
*Basic Mechanisms of Immune-related Adverse Events (irAEs) in Cancer Immunotherapy***

Supports mechanistic research that aims to improve the understanding of the pathophysiology of irAEs related to immunotherapy.



Phil Daschner
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Yin Liu
(liuy@exchange.nih.gov)

Funding Opportunities Related to Metastasis

PAR-22-234:

The Metastasis Research Network (MetNet): MetNet Research Projects (U01)

Supports research projects that use systems-level approaches to address gaps and opportunities in metastasis research, which will be a part of the **MetNet**.

***Next Receipt Dates: June 20, 2024
through June 20, 2025***



Christine Nadeau

(christine.nadeau@nih.gov)



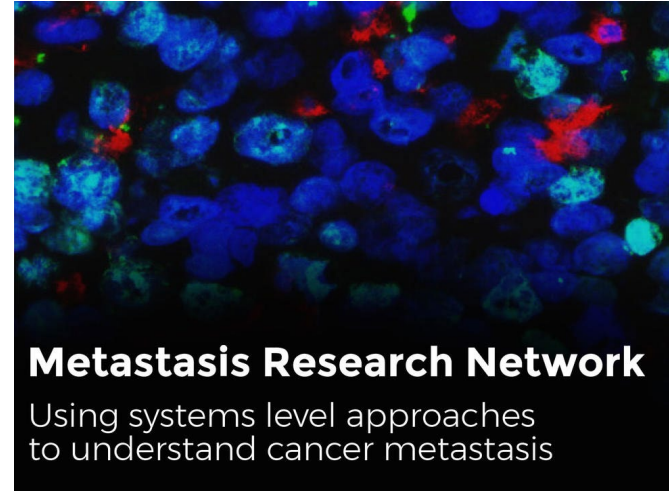
Brunilde Grill

(grilbrun@mail.nih.gov)



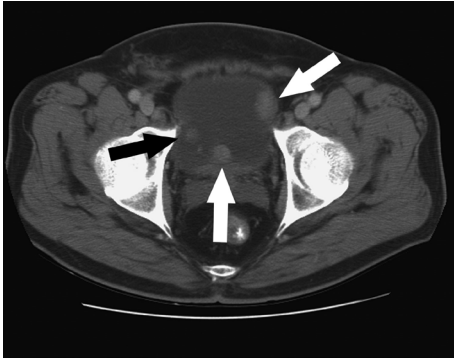
Joanna Watson

(watsonjo@mail.nih.gov)



MetNet
webpage

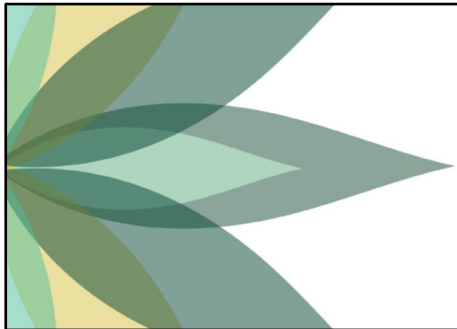
Funding Opportunities Related to Bladder Cancer and Cannabis



PAR-22-218 & PAR-22-219:

Biology of Bladder Cancer (R01 & R21)

Supports research projects investigating the biology and underlying mechanisms of bladder cancer.



NOT-CA-22-085 (NOSI):

Basic Mechanisms of Cannabis and Cannabinoid Action in Cancer

Supports research in understanding the mechanisms by which cannabis and cannabinoids affect cancer biology, cancer interception, cancer treatment and resistance, and management of cancer symptoms.



Ron Johnson
(rjohnso2@mail.nih.gov)

NIH Data Management and Sharing

- NIH's goal is to promote a culture in which data management and sharing are recognized to be an integral component of a biomedical research project, rather than an administrative or additive one.
- NIH encourages data management and sharing practices to be consistent with the FAIR (Findable, Accessible, Interoperable, and Reusable) data principles.
- Division of Cancer Biology recognizes the initial challenges but believes data sharing will greatly benefit the cancer research community by reducing unnecessary data replication and wastage of precious resources, while facilitating transparency, reproducibility, discovery and innovation.



Soumya Korrapati
(soumya.korrapati@nih.gov)

NCI Division of Cancer Biology (DCB) *New Grantee Workshop*

DCB offers an annual workshop for new and early-stage investigators to familiarize them with the processes of DCB, NCI, and NIH.



Presentation slides and FAQs from the 2024 meeting can be found at cancer.gov/dcb.

An infographic with a blue background. At the top, the number '1,000+' is written in large white font. Below it, the text 'NEW GRANTEES attended the annual DCB New Grantee Workshop for new and early-stage investigators since 2001' is written in white. The bottom portion of the graphic shows a high-angle, blue-tinted photograph of a group of people in a meeting or workshop setting, some standing and talking, others sitting at tables.

1,000+
NEW GRANTEES attended the annual DCB New Grantee Workshop for new and early-stage investigators since 2001

Notice of Special Interest (NOSI): NOT-CA-24-059

Conferences and Scientific Meetings in Cancer Biology (R13)

- Application due Dec. 12, 2024
- Letter of Intent (LOI) due Nov. 12, 2024
- Support up to **\$50,000** per conference



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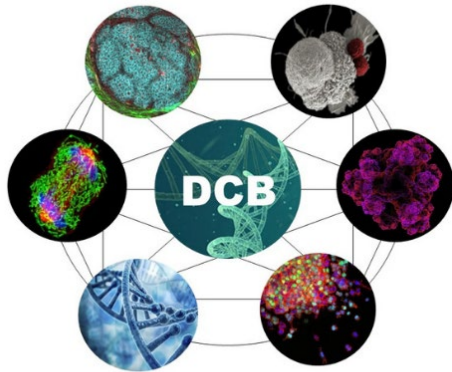
Ruibai Luo

luoru@mail.nih.gov



Summary: Current Funding Opportunities in Cancer Biology

Notices of Funding Opportunities (NOFOs) supported by the NCI Division of Cancer Biology can be found at cancer.gov/dcb





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INSTITUTE**

www.cancer.gov

www.cancer.gov/espanol