Division of Cancer Biology (DCB) Research Areas and Program Priorities

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Division of Cancer Biology

NIH NATIONAL CANCER INSTITUTE

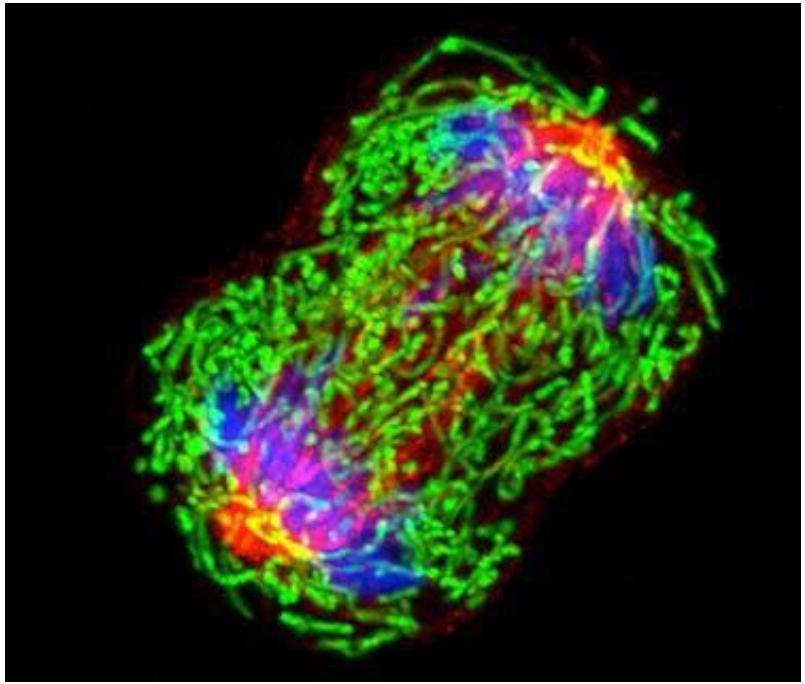
DCB research portfolio

- Studies of fundamental and biological processes of cancer
- Research that supports translational efforts in diagnosis, treatment and prevention
- Broad range of investigator-initiated studies in existing and emerging areas in basic cancer biology
- *Studies of high scientific merit and impact are welcome across all cancers and cancer processes*

DCB research areas

Cancer Cell Biology

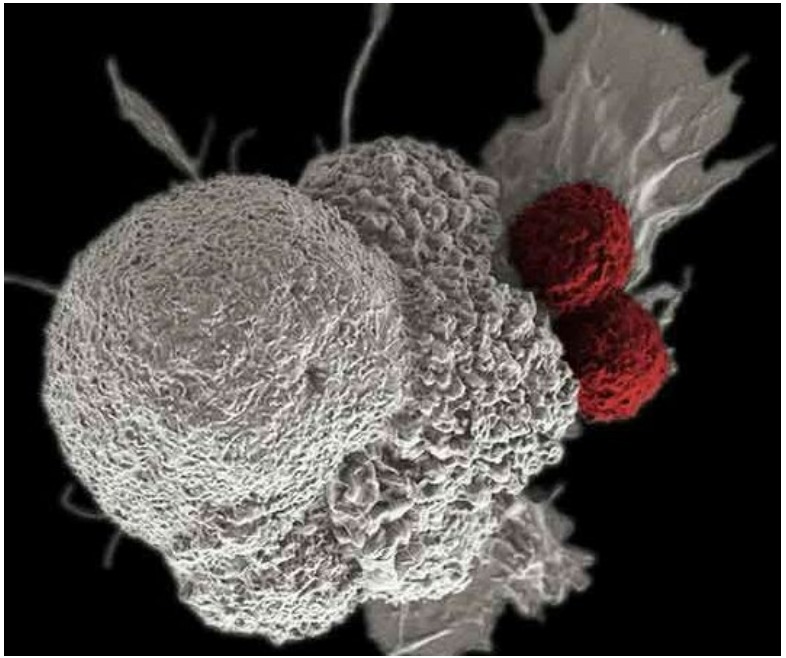
- Cell metabolism
- Stress responses
- Organelle biology
- Cell cycle
- Epitranscriptomics



DCB research areas

Cancer Immunology, Hematology, and Etiology

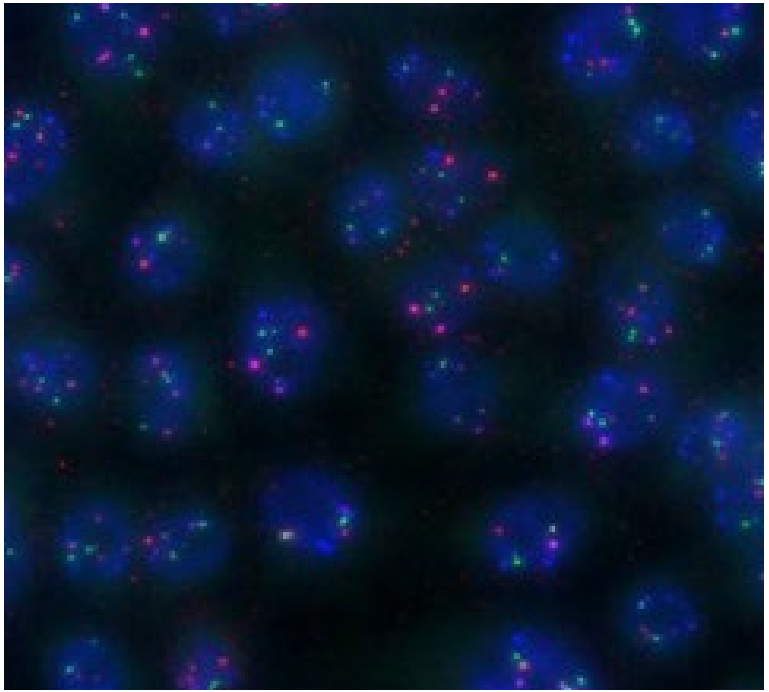
- Anti-tumor immunity
- Lymphoma, leukemias and myeloid malignancies
- Viral carcinogenesis
- Microbiome
- Diet and aging



DCB research areas

DNA and Chromosomal Aberrations

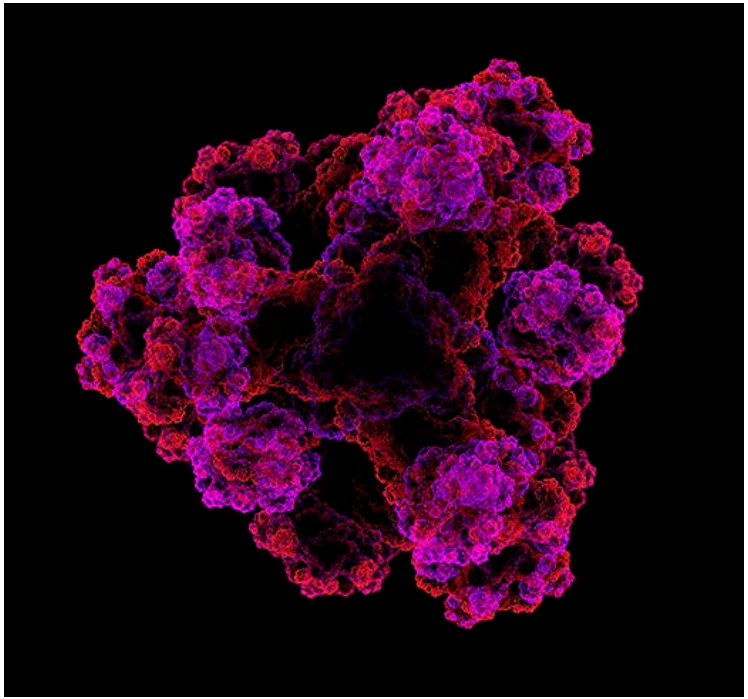
- Gene regulation and epigenetics
- Cancer genetics
- Genomic instability
- DNA damage repair
- Chemical carcinogenesis



DCB research areas

Structural Biology and Molecular Applications

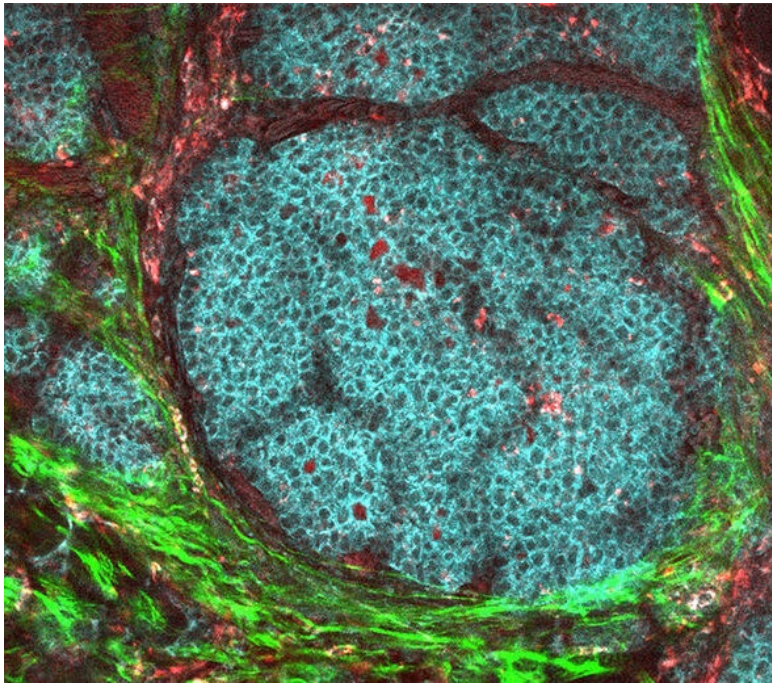
- Structural biology
- Computational biology
- Data science
- Systems biology
- Bioengineering



DCB research areas

Tumor Biology and Microenvironment

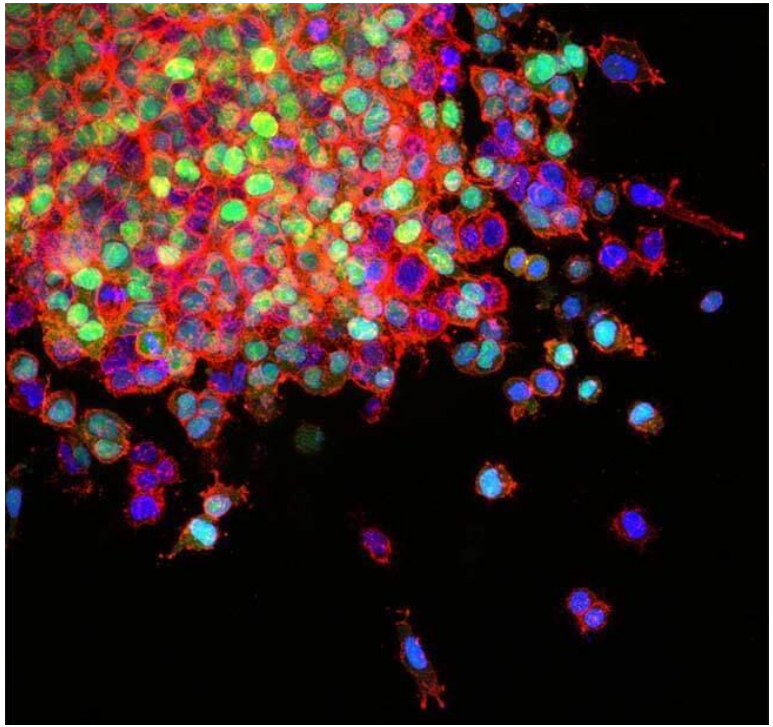
- Tumor-stromal interactions
- Extracellular matrix
- Angiogenesis
- Role of the tumor microenvironment
- Glycobiology



DCB research areas

Tumor Metastasis

- Cellular invasion and migration
- Intravasation and extravasation
- Dissemination
- Metastatic niche
- Dormancy



Project design

- Use complementary approaches and models
- Ensure that models are appropriate and human relevant
- Outline expected outcomes and alternative plans for each aim
- Make sure project scope is appropriate for the planned time and budget
- Address sex as a biological variable
- If used, address human subjects and vertebrate animals

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

Division of Cancer Biology

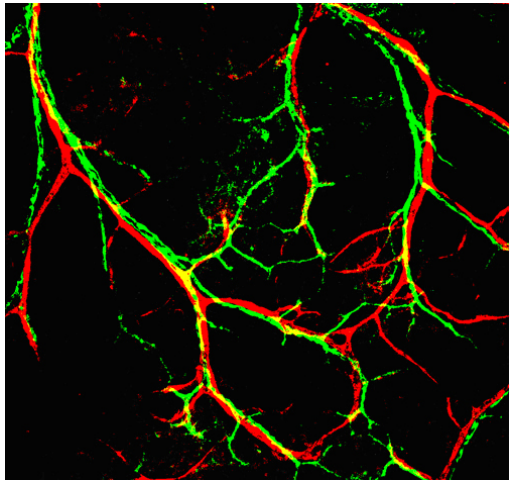
The Division of Cancer Biology (DCB) supports basic research in all areas of cancer biology at academic institutions and research foundations across the United States. As part of the National Cancer Institute, DCB provides funding for research that investigates the basic biology behind cancer.

DCB is on Twitter!

Follow @NCICancerBio for the latest updates from our Division.

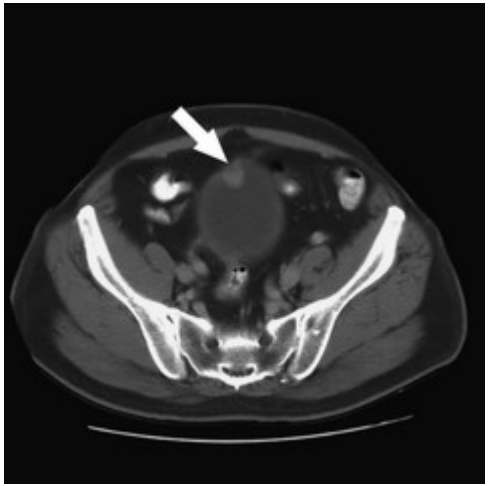
Area of emphasis

- Neural Regulation of Cancer
- PAR-19-353 (R01) and PAR-19-354 (R21)
- Understand the nervous system's contribution to cancer.
- Transdisciplinary research of neuroscience and cancer biology encouraged.



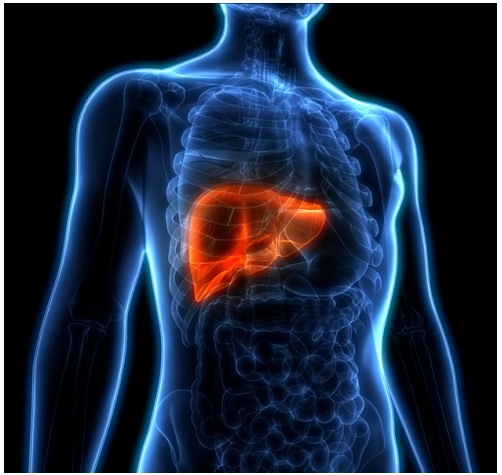
Area of emphasis

- Biology of Bladder Cancer
- PAR-19-183 (R01) and PAR-19-184 (R21)
- Understand the biology and underlying mechanisms of bladder cancer
- Broad scope of interest areas covering all stages of bladder cancer including preneoplasia



Area of emphasis

- Mechanisms of Disparities in Chronic Liver Diseases and Cancer
- PAR-20-088 (R01) and PAR-20-081 (R21)
- Understand the etiologic factors and mechanisms that affect population-based disparities in liver cancer
- Underlying causes of incidence and mortality differences among populations



Microbiome

- Co-infection and Cancer
- PAR-20-062 (R01) and PAR-20-061 (R21)
- Effect of two or more infectious agents on cancer
- Viruses, bacteria, parasites, or microorganisms
- Mechanistic or population studies