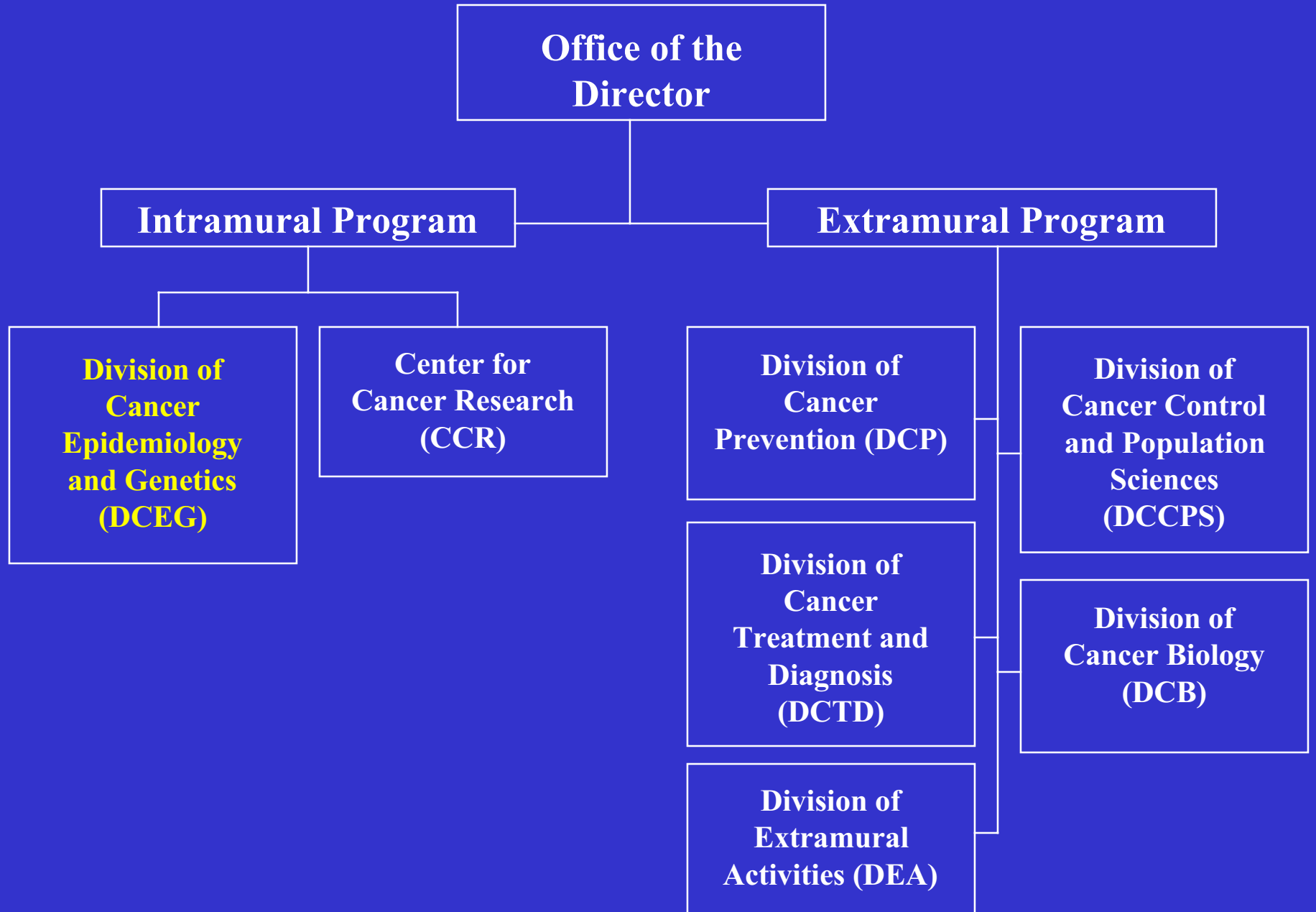




**Dr. Joseph F. Fraumeni, Jr., Director**

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# National Cancer Institute



# **DCEG Role and Mission**

- **DCEG is the primary focus within NCI for population-based research on environmental and genetic determinants of cancer.**
- **DCEG's mission is to conduct interdisciplinary collaborative studies on the distribution, causes, and natural history of cancer, and the means for its prevention.**

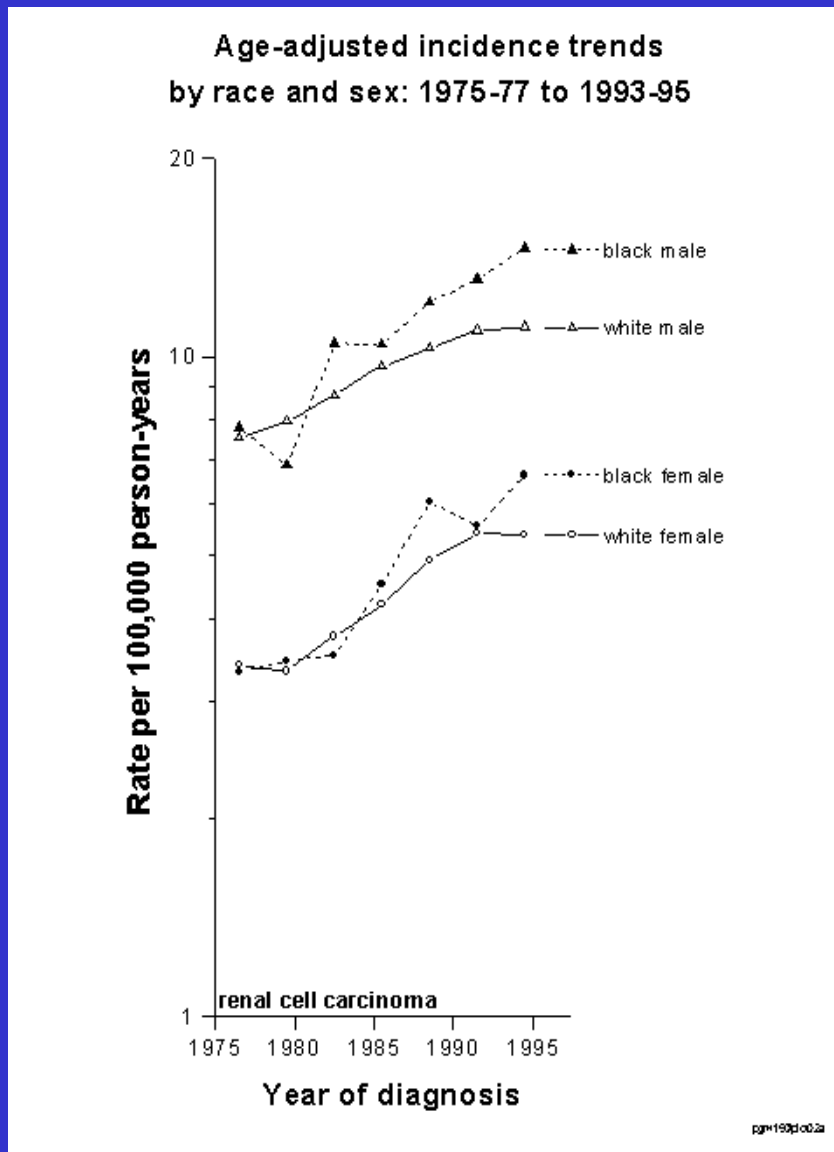
# DCEG Research Areas

- **Conduct statistical surveillance and generate cancer maps to look for clues to identify high risk areas**
- **Conduct field studies to test hypotheses related to special areas of interest including:**
  - **Genetic predisposition**
  - **Lifestyle factors**
  - **Environmental contaminants**
  - **Occupational exposures**
  - **Medications**
  - **Radiation and infectious agents**

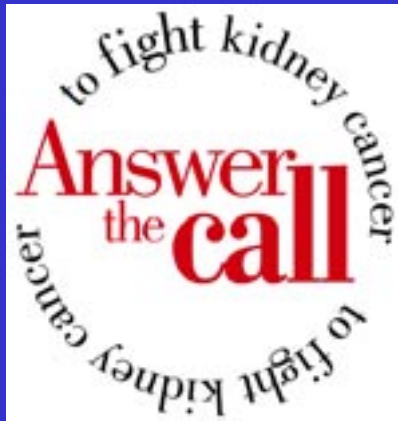
# DCEG Cancer Health Disparities Initiatives

- Bladder
- Breast
- Cervix
- Esophagus
- Kidney
- Multiple myeloma
- Pancreas
- Prostate
- Descriptive studies and Cancer Atlas

# Kidney Cancer Incidence



- Rising incidence rates among whites and blacks
- Most rapidly increasing cancer among blacks
- Emerging excess among blacks




# U.S. Kidney Cancer Study

**The Kidney Cancer Study**

Each year more than 30,000 people are diagnosed with kidney cancer and 12,000 people die from it. Researchers want to learn how to prevent this disease. They are calling people to join a study on kidney cancer.

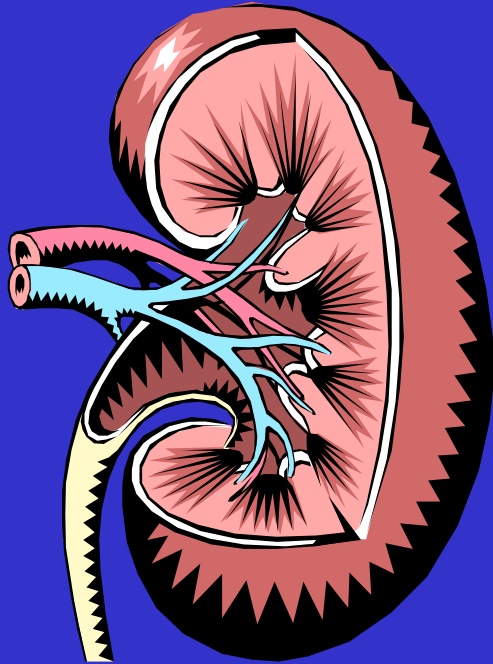
If your phone rings, answer the call – to fight kidney cancer.



**UIC** University of Illinois at Chicago  
**Wake Forest University**  
**NATIONAL CANCER INSTITUTE**  
Kidney Cancer Association



# Kidney Cancer Risk Factors

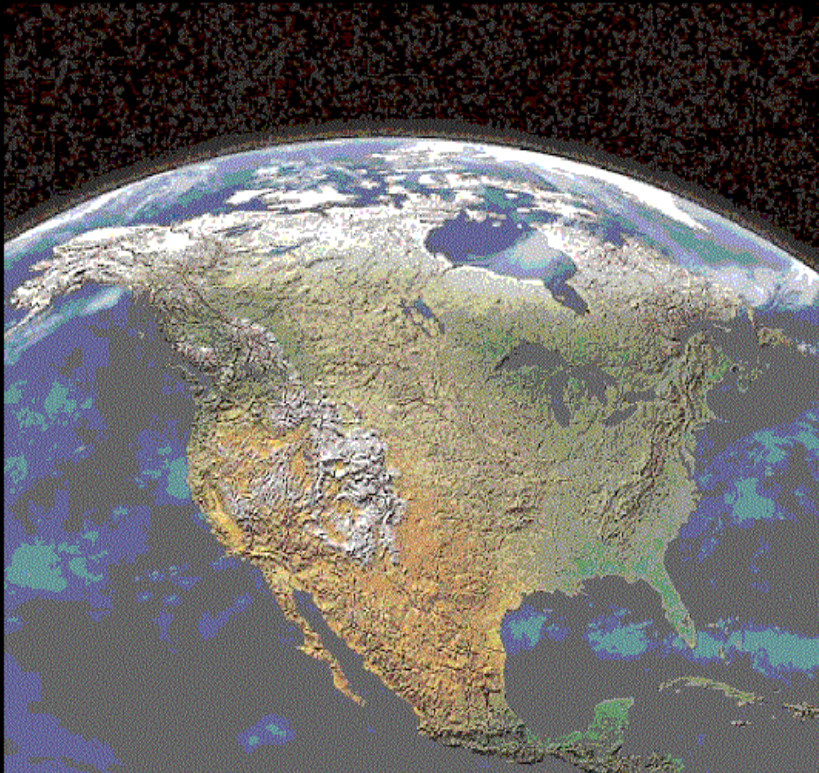


- **Well-established risk factors**
  - Smoking
  - Obesity
  - Hypertension
- **Potential risk factors**
  - Occupational exposures
  - Diet
- **Genetic predisposition**

# The Atlas

Atlas of Cancer Mortality  
in the United States

1950-94



National Institutes of Health  
National Cancer Institute

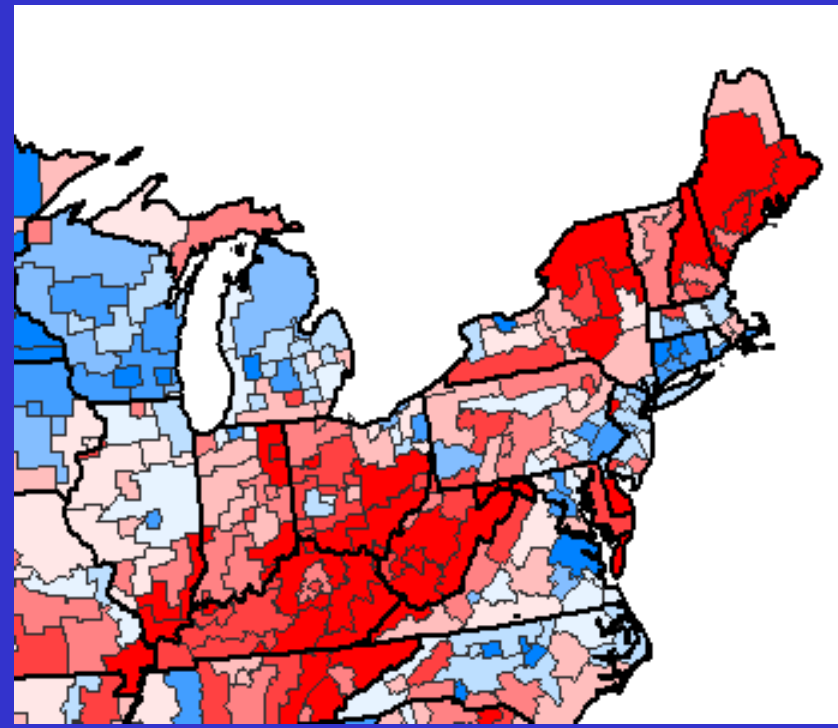
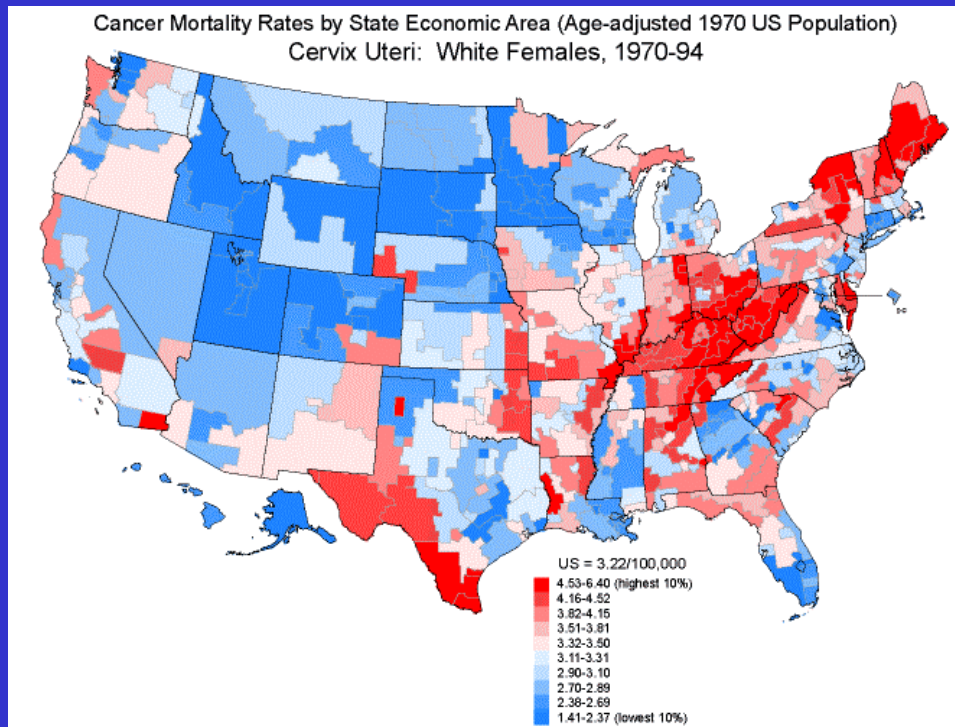
# The Web site

*The Atlas  
On-Line*

*Customizable  
Maps*

[www3.cancer.gov/atlasplus/](http://www3.cancer.gov/atlasplus/)

# Cervical Cancer Mortality-White Women

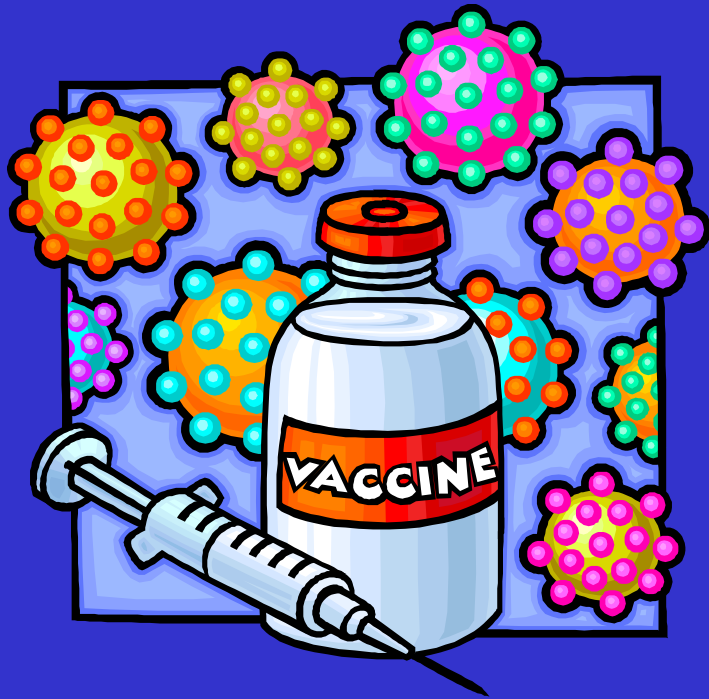


- Rates elevated in parts of Appalachia
- Rates high along SW border (high proportion of Mexican Americans)
- High rates may reflect lower SES and limited access to effective screening and health care

# Cervical Cancer Risk Factors

- **Necessary Cause**
  - Human papillomavirus ( HPV 16 accounts for 50%)
- **Etiologic Co-factors**
  - Parity
  - Smoking
  - Long-term oral contraceptive use
  - Host immune response to HPV
  - Other sexually transmitted diseases/cervical inflammation
  - Diet
- **Socio-demographic factors**
  - Low SES
  - Rural residence
  - Ethnicity (non-white)
  - Family history

# NCI/Costa Rican Human Papilloma Virus (HPV) Vaccine Efficacy Trial



- Infection with certain types of HPV, notably HPV16, elevate risk
- Trial enrolling 12,000-15,000 women ages 18-25 in Costa Rica to:
  - Evaluate the efficacy of vaccine
  - Evaluate issues of etiologic and immunological relevance

# DCEG Training Opportunities



- **Short visits**
- **Sabbaticals**
- **Fellowships**
- **Partnerships**

# Short Visits (weeks)

- **Meet with NCI investigators in DCEG and other NCI Divisions to:**
  - **Collect information on questionnaires and protocols for studies focusing on health disparities**
  - **Study statistical data sources such as SEER and NCHS**
  - **Survey approaches to health disparities**
  - **Investigate laboratory approaches and analyses that complement epidemiologic data**
- **Attend weekly DCEG seminars, NCI lectures**

# Sabbaticals (months)

- **Collaborate with DCEG to pursue a topic of mutual interest using NCI data, for example**
  - **Collaborate on a part of the kidney cancer study**
  - **Use databases to investigate cancer risk profile of Hispanics or Asian Americans**
- **Bring own material, data, or questions to work on with DCEG researchers**
- **Brainstorm with DCEG researchers to create new projects related to cancer health disparities**
- **Attend lectures, seminars at NIH and classes at nearby universities**

# Fellowships (3-5 years)

- **Training under supervision of DCEG senior scientists**
  - **Currently have 50 postdoctoral fellows and 10 pre-doctoral fellows**
  - **Design, carry out, and analyze research related to the etiology of cancer in human populations**
  - **Gain experience with interdisciplinary and/or multicenter collaborative research**
  - **Special programs available in: Genetic, Radiation, and Molecular Epidemiology and Biostatistics and Informatics**
- **Attend lectures, seminars, classes, and scientific meetings**

# Partnerships

- **Developing training partnerships with graduate programs, for example**
  - **Working with Howard University to develop a program that will help train more researchers with an interest in cancer health disparities**
- **Potential for collaborative training programs with other NCI divisions (e.g., DCCPS and DCP)**
- **Attend lectures, seminars, classes, and scientific meetings**

# Inquiries and Information

- Office of Education
- Division of Cancer Epidemiology and Genetics
- National Cancer Institute
- 6120 Executive Blvd
- Bethesda, MD 20892-7242
  
- Phone: 301-594-3005
- <http://www.dceg.cancer.gov>

