

Epidemiology and Genetics Research Program



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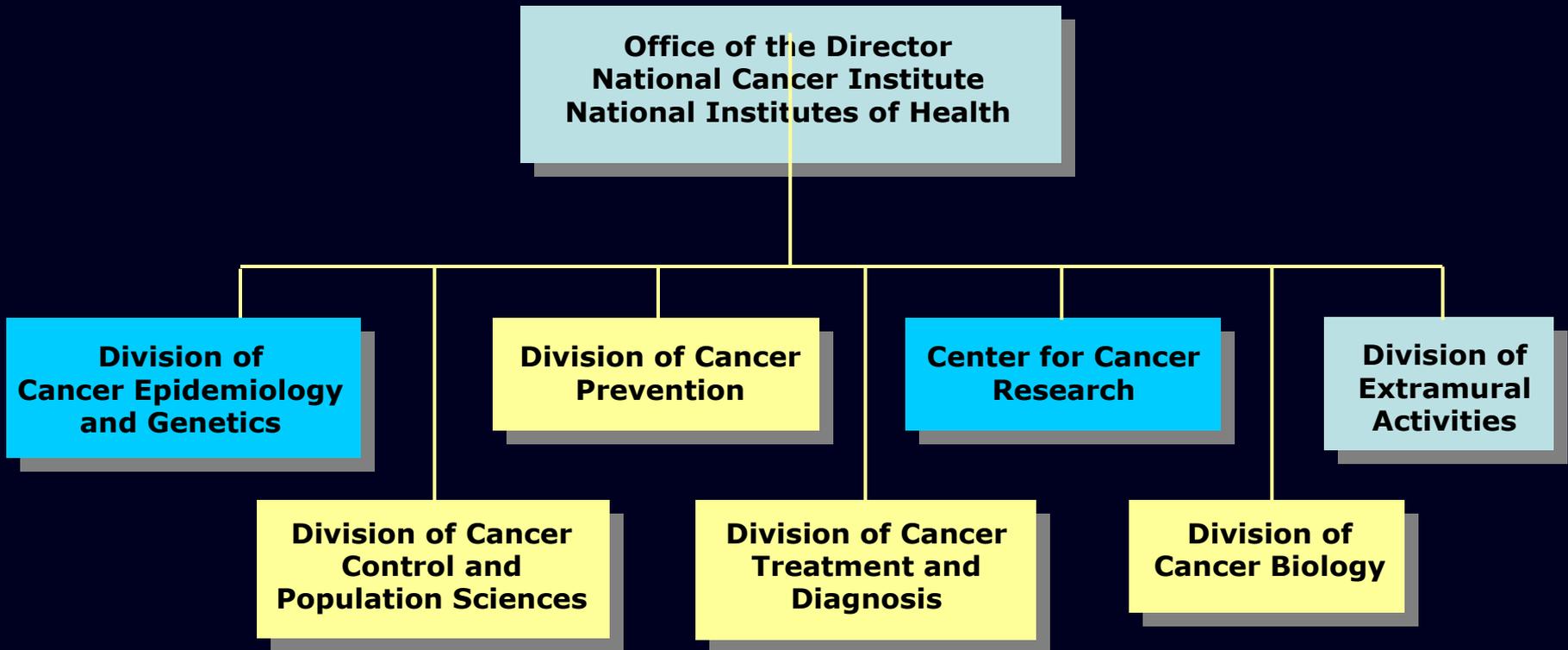
Associate Director

Epidemiology and Genetics Research Program

The First NCI Epidemiology Leadership Workshop:
Tobacco, Diet, Genes



NCI Organizational Structure



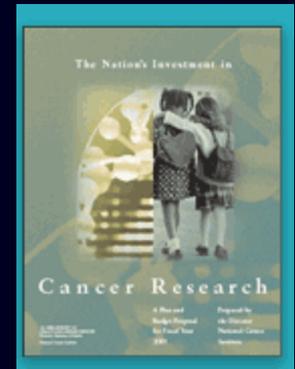
NCI Strategic Priorities

- **Integrated cancer biology**
- **Strategic development of cancer interventions**
- **Early detection, prevention, prediction**
- **Determination of risk factors**
- **Re-engineer intramural program**
- **Integrated clinical trials system**
- **Overcoming health disparities**
- **Bioinformatics**

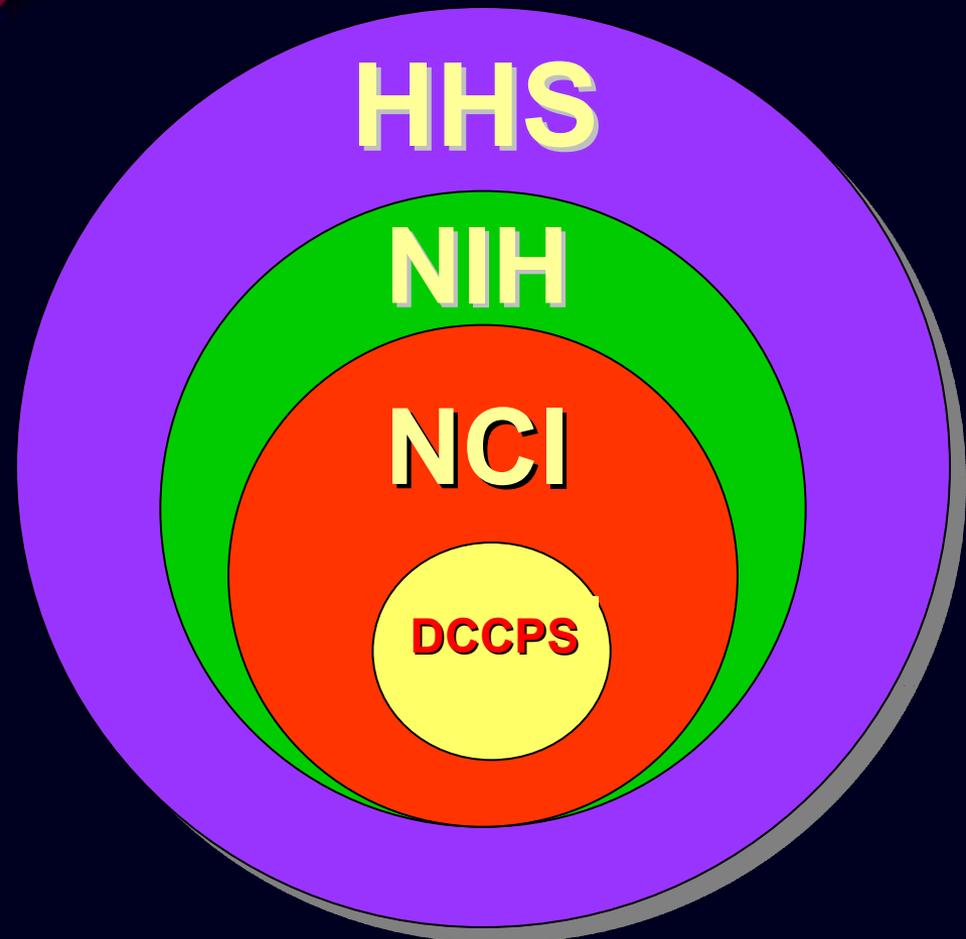


NCI BYPASS BUDGET GOAL: Gene-Environment Interactions

- To discover genetic, environmental, and lifestyle factors and their interactions that define cancer risk and inform strategies for cancer control.



DCCPS: Who Are We?



- **Mission: To understand the causes and distribution of cancer in populations,**
- **To support the development and implementation of effective interventions,**
- **To monitor and explain cancer trends in all segments of the population, and**
- **To effectively apply research discoveries to reduce the cancer burden.**



Epidemiology and Genetics Research Program (EGRP)

HHS

NIH

NCI

DCCPS
EGRP

- ▶ EGRP manages a comprehensive program of grant-supported, population-based research that brings to bear the expertise of scientists to increase our understanding of cancer etiology and prevention.
- ▶ Scientists from throughout the United States and internationally are supported.



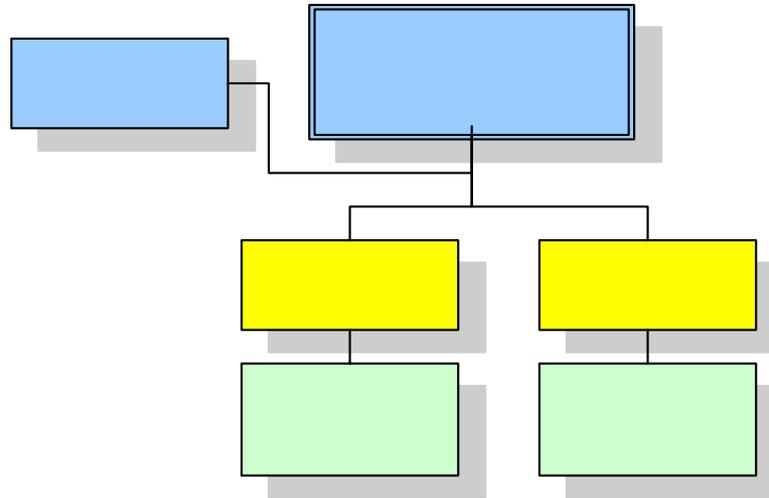
Epidemiology and Genetics Research Program

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We Are the Epidemiology and Genetics Research Program (EGRP)

Epidemiology and Genetics Research Program



Types of Studies Conducted in CGERB

- ▶ Gene discovery (**linkage and association**)
- ▶ Gene penetrance
- ▶ Effect modification (**gene-gene, gene-environment interactions**)
- ▶ Analytical methods for genetic epidemiology and risk assessment
- ▶ Behavioral and clinical research on genetically susceptible populations (**observational and interventions**)



Types of Studies Conducted in AERB

- ▶ The AERB supports epidemiologic research in cancer etiology and modifying risk factors related to
 - ▶▶ diet/nutrition,
 - ▶▶ alcohol,
 - ▶▶ lifestyle/ behavior, tobacco,
 - ▶▶ infectious diseases,
 - ▶▶ environmental and occupational exposures,
 - ▶▶ exogenous hormones and iatrogenic drugs,
 - ▶▶ methodological development and application in molecular epidemiology that focuses on biomarkers of risk and improved exposure assessment,
 - ▶▶ & the application of GIS.



Initiatives

- ▶ **Small Grants Program for Cancer Epidemiology- Verma**
- ▶ **Breast Cancer and Environment Health Centers- Iwamoto**
- ▶ **Studies of Energy Balance and Cancer in Humans- Hartmuller**
- ▶ **Pharmacoogenomics Research Network and Knowledge Base- Arena and Iwamoto**
- ▶ **Surveillance of World Trade Center Workers- Trapido**
- ▶ **Cohort Consortium- Melnick**
- ▶ **Interlymph- Kasten**



Initiatives

- ▶ **CGN- Kasten**
- ▶ **CFR Informatics- Seminara**
- ▶ **Cohort Studies in Cancer Epidemiology- Patel**
- ▶ **Molecular Epidemiology Associated With Acquired Immunodeficiency- Starks**
- ▶ **Long Island Breast Cancer / GIS- Winn**
- ▶ **SBIR/STTR- Choudhry**
- ▶ **Site specific consortia - Staff**

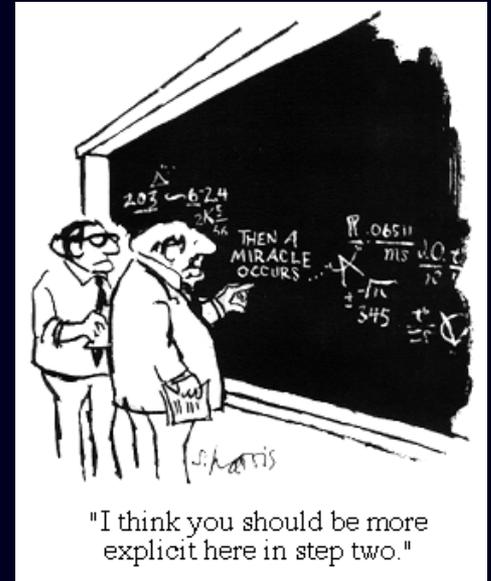


Major Areas of Emphasis or Growth

- ▶ **Diet and Energy Balance**
- ▶ **Bioinformatics**
- ▶ **Tobacco**
- ▶ **Epigenetics**
- ▶ **Consortia**



Portfolio



Microworlds for Breast Cancer Risk Reduction
MINORITY BASED COMMUNITY CLINICAL ONCOLOGY PROGRAM
MINORITY PREDOCTORAL FELLOWSHIP PROGRAM

EGRP Funded Studies

Piedmont Alliance for Cancer Research and Education
POR LA VIDA INTERVENTION MODEL IN CANCER EDUCATION
PRCC/MDACC: Partners for Excellence in Cancer Research
Predicting Adherence to Follow up of Abnormal Pap Smears
Pregnancy Hormonal Profile/Biomarker Breast Cancer Risk
PREVENTION THROUGH PHYSICAL ACTIVITY--PARENTAL INFLUENCE
PROFESSIONAL ONCOLOGY EDUCATION
PROSTATE CANCER IN MEXICANS AMERICANS & AFRICAN AMERICANS
QUALITY OF LIFE IN ADULT CANCER SURVIVORS
Quality of Life, Ethnicity, and Breast Cancer Survivors*
REDES EN ACCION--CANCER AWARENESS, TRAINING AND RESEARCH
RISK FACTORS FOR ADVANCED PROSTATE CANCER
SAN ANTONIO CENTER OF BIOMARKERS OF RISK FOR PROSTATE CANCER
SAN FRANCISCO MAMMOGRAPHY REGISTRY--A RESEARCH RESOURCE
SAN JUAN MB COMMUNITY CLINICAL ONCOLOGY PROGRAM
SINGLE VISIT CERVICAL CANCER PREVENTION PROGRAM
SMOKING PREVENTION FOR LATINO MIDDLE SCHOOL STUDENTS
South Texas Pediatric Minority Based CCOP
STATISTICAL ANALYSIS OF CANCER INCIDENCE
TAILORED COMMUNICATIONS FOR COLORECTAL CANCER SCREENING
TAILORING NUTRITION EDUCATION FOR LOW INCOME AUDIENCES
TAMOXIFEN & BREAST CANCER--ACCEPTANCE/COST EFFECTIVENESS
TEXAS CANCER GENETICS CONSORTIUM
TEXAS MULTI CULTURAL REGIONAL COMMUNITY TOBACCO STUDIES
THE 4 CORNERS BREAST AND ENDOMETRIAL CANCER STUDY
TOBACCO USE AMONG MINORITY YOUTH: A LONGITUDINAL STUDY
TRANSDISCIPLINARY TOBACCO USE RESEARCH CENTER
UCLA CANCER GENE MEDICINE TRAINING PROGRAM
UNIVERSITY OF NEW MEXICO CANCER CENTER PLANNING GRANT
VITAMIN D RECEPTOR GENE POLYMORPHISM AND BREAST CANCER
WOMENS STORIES--A VIDEO ON THE IMPORTANCE OF MAMMOGRAMS

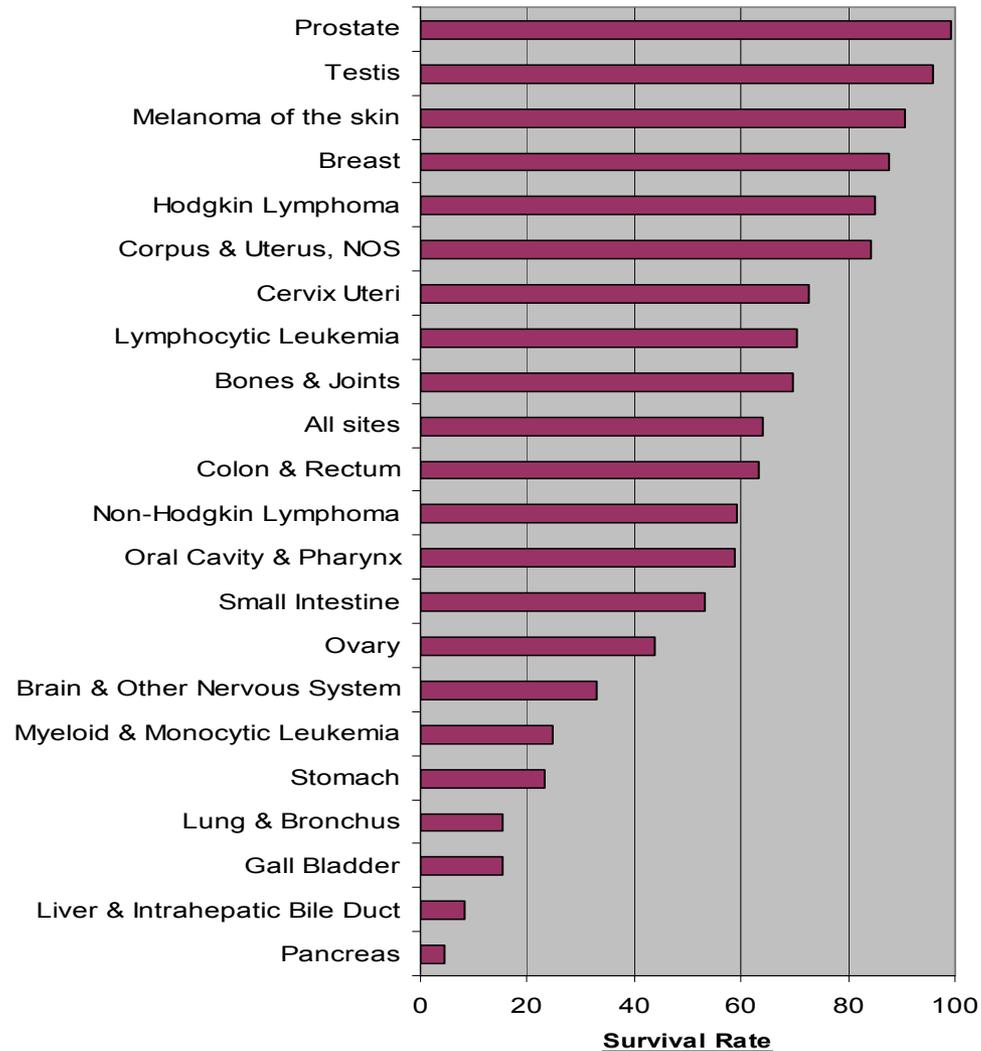
**497 Grants
for \$203M**

AIDS MALIGNANCY CONSORTIUM
ARKANSAS SPECIAL POPULATIONS ACCESS NETWORK (A-SPAN)
Bay Area Tumor Institute CCOP
BEHAVIORAL CONTRACTS AND CULTURE IN CANCER SCREENING
BRCA1 AND BRCA2 IN AFRICAN-AMERICAN AND LATINO FAMILIES
Breast Cancer Genes in Mexican Populations
BREAST CANCER SURVEILLANCE RESEARCH IN COLORADO
CANCER AWARENESS NETWORK FOR IMMIGRANT MINORITY POPULATI
CANCER EDUCATION PROGRAM FOR NEW JERSEY MEDICAL SCHOOL
CANCER GENETICS NETWORK
CANCER RISK FACTOR PREVENTION FOR HIGH RISK YOUTH
CASE-CONTROL STUDY OF HODGKIN'S DISEASE IN CHILDREN
CISPLATIN AND LASER THERMAL THERAPY FOR CANCER
COLORECTAL CANCER SCREENING IN HIGH RISK INDIVIDUALS
COMMUNITY CLINICAL ONCOLOGY PROGRAM: FLORIDA PEDIATRIC C
COMMUNITY RANDOMIZED TRIAL OF HISPANIC CANCER PREVENTION
COMMUNITY TRIAL TO INCREASE CANCER SCREENING ADHERENCE
Cooperative Planning of the SDSU/UCSD Cancer Partnership
Cross-Cultural Communication and Colorectal Screening
DETERMINANTS OF CANCER RISK AND OUTCOME IN GI ONCOLOGY
DETERMINANTS OF CLINICAL OUTCOME/TOXICITY IN HISPANICS
Diet, Genetic Susceptibility and Colorectal Neoplasia
Dietary Assessment in Minority Adolescents
EFFECTS OF A PARENT VIDEO ON HISPANIC CHILDREN'S WEIGHT
Evaluating Cancer Disparities Among Hispanic Communities
FACILITATING POSITIVE ADAPTATION TO BREAST CANCER
GENETIC SUSCEPTIBILITY TO CANCER IN MULTIETHNIC COHORTS
GRADUATE EDUCATION IN ONCOLOGY NURSING FOR MINORITIES
GREATER DENVER LATINO CANCER PREVENTION/CONTROL NETWORK
Identification of biomarkers of fatty acid intake
Increasing Mammogram Adherence in Minority Women
INCREASING SCREENING ADHERENCE THROUGH A PHYSICIAN TRIAL
INNOVATIVE NUTRITION COMMUNICATION FOR LATINOS
Insulin Resistance and Adenomas of the Colorectum
Latina Cervical Cancer Survivorship
Making Connections/Conexiones On Health Disparities
MARKETING CANCER RESEARCH TO LATIN AMERICANS

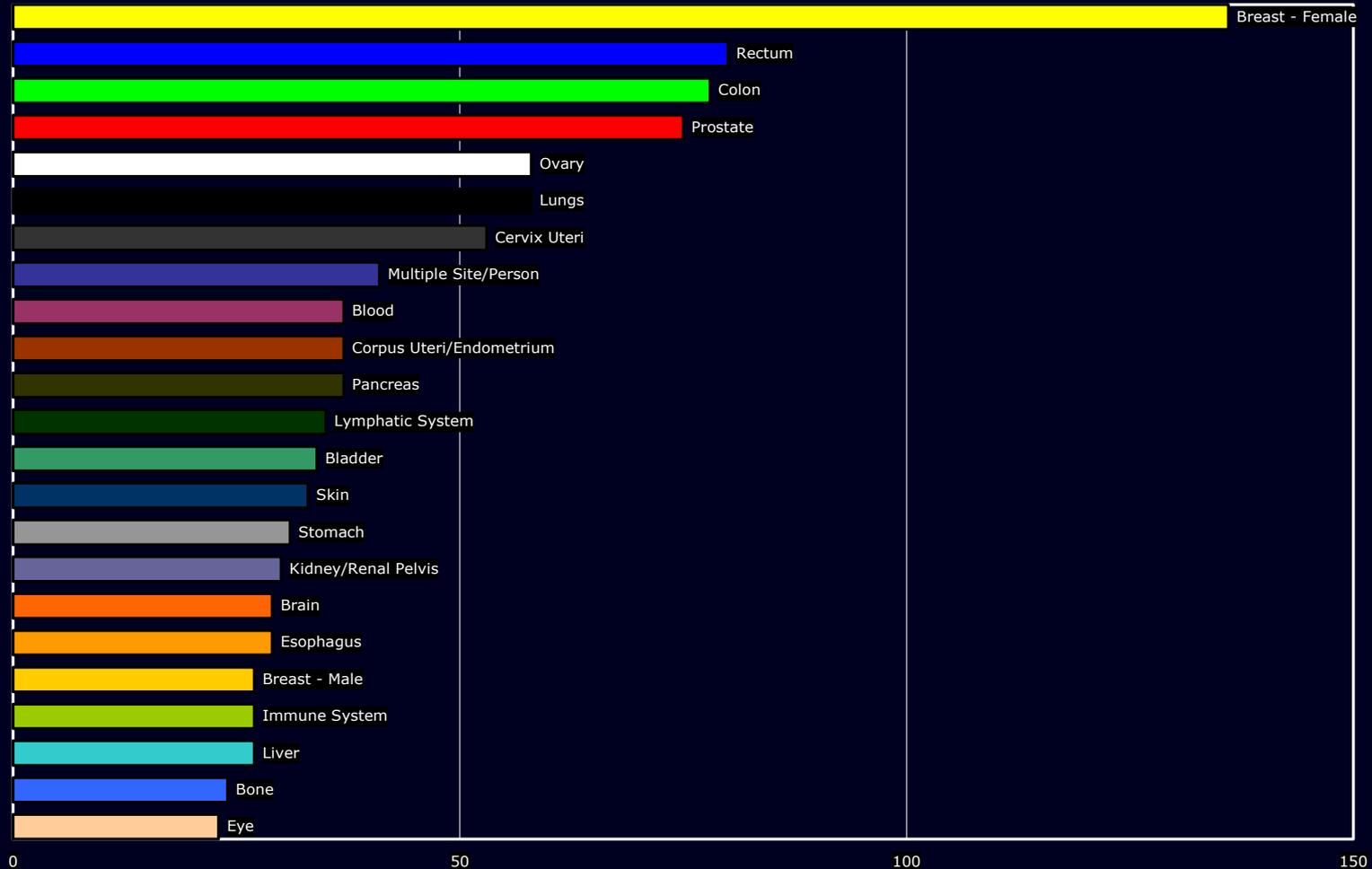


Survival

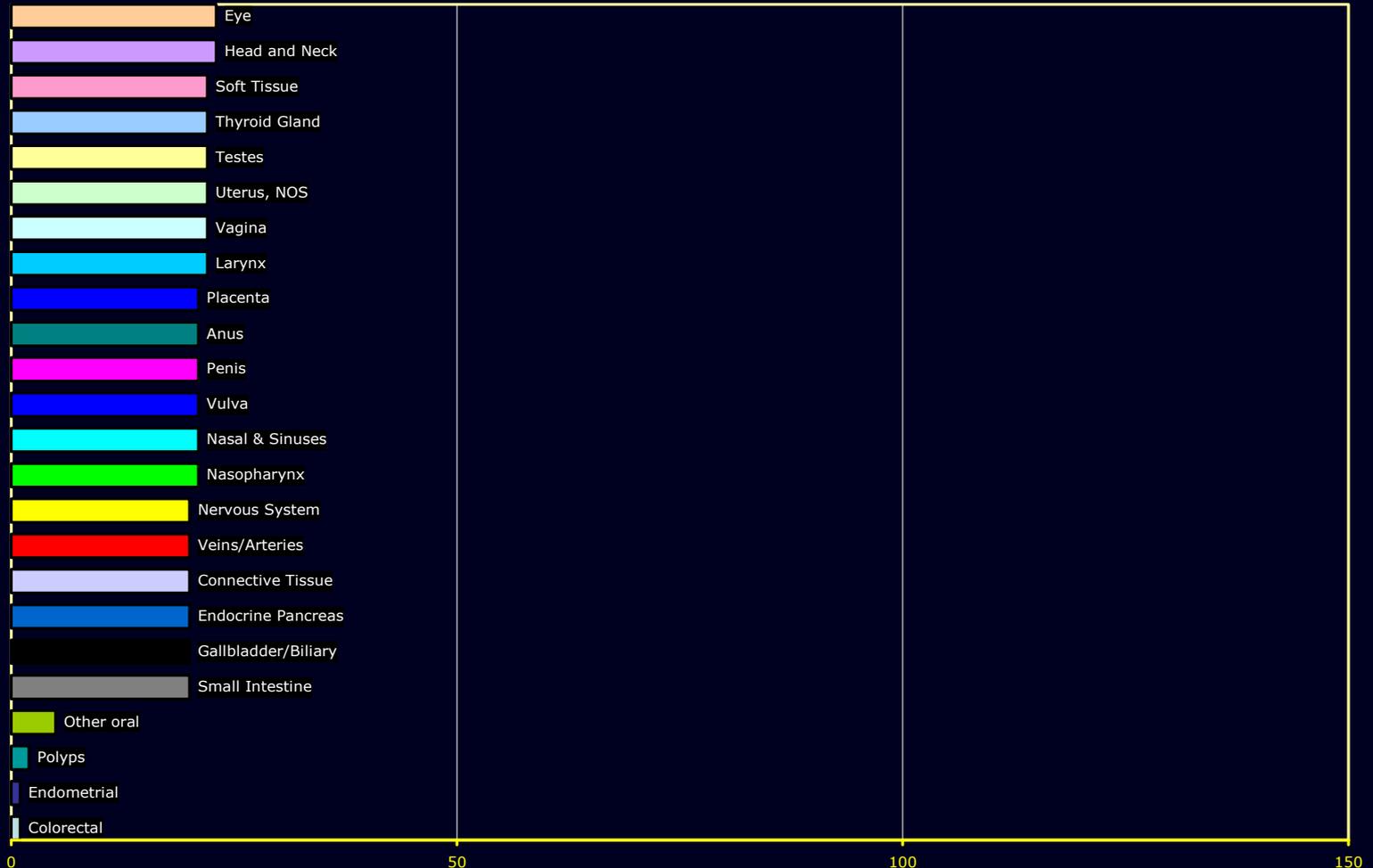
Survival Rates of Different Cancers



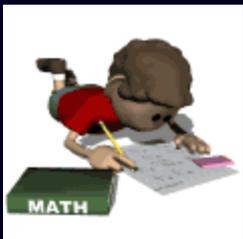
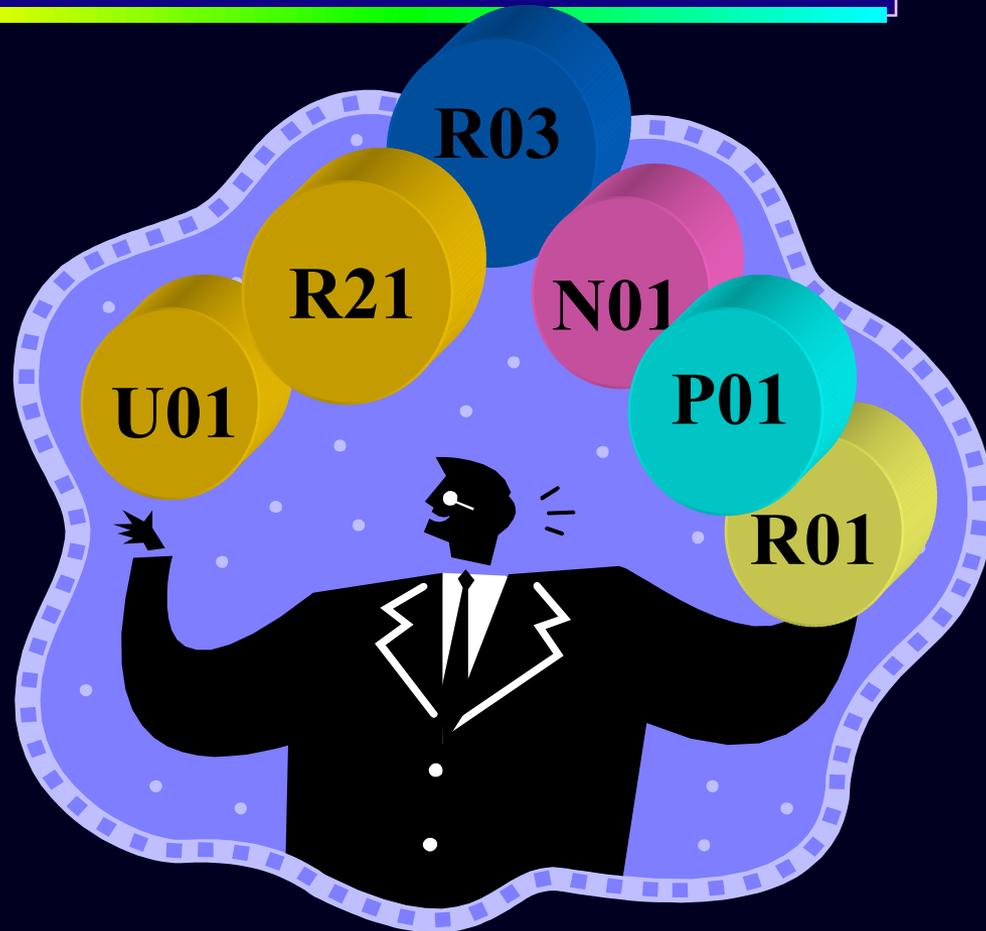
No. Awards by Organ Site



No. Awards by Organ Site



Making Them Work Together



Major Studies in EGRP Research Portfolio

- ▶ **So. Comm. Cohort**
- ▶ **Nurses' Health Study**
- ▶ **MultiEthnic Cohort Study**
- ▶ **CA Teachers' Cohort**
- ▶ **Black Women's Cohort**
- ▶ **Iowa Women's Health Study**
- ▶ **NYU Women's Health Study**
- ▶ **Kaiser-Permanente**
- ▶ **7th Day Adventist Study**
- ▶ **Vitamin Supplementation Study**
- ▶ **Shanghai Cohort**
- ▶ **Singapore Diet Cohort**
- ▶ **Alaska Native / Amer. DES Registry**
- ▶ **Indian**
- ▶ **Helicobacter Program Project**
- ▶ **Hodgkin's, NHL Studies**
- ▶ **Hep B Cohort, China & Senegal**
- ▶ **Four Corners' Study**
- ▶ **Shanghai Men's Health**
- ▶ **Shanghai Women's Health**



Global Distribution of EGRP Research

- 
- ▶ Senegal
 - ▶ The Zambia
 - ▶ Kenya
 - ▶ China
 - ▶ Shanghai
 - ▶ Malawi
 - ▶ Singapore
 - ▶ Japan
 - ▶ U.S.—rural South,
Alaska, Hawaii,
Southwest
 - ▶ Egypt
 - ▶ Israel
 - ▶ Brazil
 - ▶ Columbia
 - ▶ Costa Rica
 - ▶ Canada
 - ▶ Sweden
 - ▶ Denmark
 - ▶ France
 - ▶ Poland



EGRP- Other Activities

- ▶ **Setting NCI's research agenda for extramural funding of cancer epidemiology**
- ▶ **Working/ cofunding with other parts of DCCPS, NCI, NIH, and other agencies**
- ▶ **Responding to congressional requests and mandates**
- ▶ **Working with grantees and prospective grantees**
- ▶ **Training**
- ▶ **Information dissemination**



Thank You!

<http://epi.grants.cancer.gov>

