

Cancer Prevention Fellowship Program

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Executive Plaza

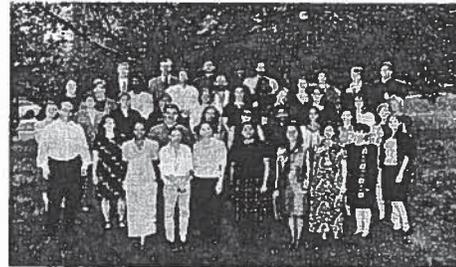


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Mission

Through coursework, mentored research experiences, and professional development activities, the Cancer Prevention Fellowship Program provides a strong foundation for physicians and scientists to train in the field of cancer prevention and control.

Cancer Prevention Fellowship Program



Cancer Prevention Fellowship Program

Structure and Activities

- Master of Public Health Training
- Summer Curriculum in Cancer Prevention
- Molecular Prevention Laboratory Training
- Mentored Research at the NCI
- Colloquia and Fellows' Research Meetings
- Grantsmanship
- Professional Development
- Annual Fellows' Scientific Symposium

Cancer Prevention Fellowship Program

Applicant Information 9/87 - 11/02

- Applications
>100 received past 3 years
- Age Range
24 - 92 years (Mean = 40)
- Gender Ratio
51% Male 49% Female
- Prior Training
58% Physicians
42% Other Doctorate
- 30 Interviewed; 16 Selected

Cancer Prevention Fellowship Program

Demographics 9/87 - 11/02

▪ Fellows in program to date	133	
▪ Age (average)	35	
▪ Women	95	71%
▪ Minorities	40	30%
▪ MDs or equivalent	31	23%
▪ PhDs or equivalent	102	78%
▪ Recent doctorate at entry	65	42%
▪ Completed Program	85	
▪ Currently in Program	48	

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Master of Public Health Training

▪ Johns Hopkins Univ.	49
▪ Harvard Univ.	13
▪ George Washington Univ.	11
▪ Univ. of North Carolina	6
▪ Univ. of California, Berkeley	2
▪ Univ. of Pittsburgh	2
▪ Univ. of Alabama	2
▪ Other Schools	9

Summer Curriculum

- Principles and Practice of Cancer Prevention and Control (4 weeks)
- Molecular Prevention (2 weeks)
 - Keynote Lecture
 - Modular structure
 - Lecturers: senior scientists and practitioners
 - Hands-on Lab exercises
 - International participants

Principles and Practice Course

Modules

- Introduction to the Cancer Problem
- Biometric Methodology
- Diet, Nutrition and Chemoprevention
- Prevention and Control of Organ-Specific Tumors
- Causal Inference and Evidence-based Decisions
- Health Disparities and Community Interventions
- Occupation and Environment
- Cancer Prevention outside the NCI

Molecular Prevention Course

Lectures

- Cancer and Biology
- Oncogenes and Tumor Suppressor Genes
- DNA Damage-Response Genes
- Xenobiotic Metabolism
- Angiogenesis
- Apoptosis
- Epigenetic Changes - Cell Signaling
- Hormonal Carcinogenesis
- Animal Models
- Molecular Epidemiology

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Mentored Research

Preceptor availability

- Division of Cancer Prevention
- Center for Cancer Research
- Division of Cancer Control and Population Sciences
- Division of Cancer Epidemiology and Genetics
- Office of the Director, NCI

Molecular Prevention Laboratory

Rationale

- Research training for lab-based fellows
- Pilot data for fellows' grants
- Home base: summer lab practicum
- CCR/DCP research program

Research Topics

- Mechanism-based prevention in transgenic mouse models
- Mechanisms of energy balance/carcinogenesis (IGF path)
- Diet/immune prevention studies

Leadership and Professional Development Workshops

- Time Management
- Effective Presentations Course
- Grants Workshop and Grant-Writing Club
- Scientific Writing
- Authorship and Ethics Issues
- Mentoring

Grants and Grantsmanship Workshop

- Lectures and exercises
- Site visit to Center for Scientific Review
- Study Section of Mini-Proposals
- EDC-1 or -2 site visit
- "Grant club" to develop proposals (K-series, R01, DOD, ACS, Intramural)
- Success to date
14/17 successful grants (2 pending)

Cancer Prevention Fellowship Program

Post Fellowship Employment:

Current placement (n=85)

- | | |
|-----------------------------|-----|
| ▪ Cancer Centers (n = 5) | 6% |
| ▪ Universities (n = 21) | 25% |
| ▪ Government (n = 38) | 45% |
| ▪ Medical Practice (n = 5) | 6% |
| ▪ Private Industry (n = 11) | 13% |
| ▪ Deceased (n = 2) | 2% |
| ▪ Other (n=3) | 4% |

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Initiatives

- Clinical Prevention Research Track
- Ethics of Prevention and Public Health Track
- Program Evaluation

- Molecular Prevention Laboratory
- Leadership and Professional Development Workshops
- All-Ireland/NCI Cancer Consortium

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Clinical Track

- Physicians, nurses and other clinicians with doctoral degrees

- MS in clinical research or MPH
- Clinical privileges
- Clinically-oriented preceptors
- Elective rotations (e.g. clinical trial protocol review)

Clinical Prevention Research Opportunities

- Chemoprevention trials
- Screening trials
- Design, implementation and analysis of clinical prevention trials
- Translational research
- Nutritional intervention trials
- Ethical issues in clinical prevention
- Evaluation and outcomes of clinical prevention trials

Ethics of Prevention and Public Health Track

Goal: Develop leaders in public health ethics with a focus on cancer prevention

Local Partners

- NIH Department of Clinical Bioethics
- PHS Office of Research Integrity
- Georgetown University
Kennedy Institute of Ethics
- Johns Hopkins University
School of Hygiene and Public Health

Ethics of Prevention and Public Health Track

Research Opportunities (selected):

- Institutional Review Boards and informed consent
- Confidentiality and privacy
- Equipoise & the conduct of prevention trials
- Concepts of cause and prevention
- Uncertainty and scientific inference
- Professional ethics
- Research integrity and scientific misconduct
- Autonomy and the common (public) good
- Ethics of primary prevention & screening

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Evaluation Initiatives

Ongoing Evaluation of Structure and Activities

- Structure and Activities
Fellows progress reports (6 & 12 months)
- Annual fellows meetings with CFPF senior staff
- Summer Curriculum in Cancer Prevention
- Recruitment and Advertising

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Evaluation Initiatives

New Evaluation of program components

- Grants & grantsmanship workshop
- Orientation week
- Molecular Cancer Prevention Laboratory module
- Annual Fellows' Scientific Symposium

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Evaluation Initiatives

Development: Multifunctional database

- On-line application form (launch July 2003)
- Computerized processing, tracking, and scoring system for applications (new in 2002)
- Surveys: Current and former fellows and other program applicants (ongoing)