

## 1990s

The field of epigenetics, characterized by chemical alterations to genes that support the growth and spread of cancer without mutating the DNA, becomes part of mainstream cancer medicine. The Cancer Center's discoveries in genetics and epigenetics are regarded as the most relevant in cancer biology, earning the Center the nickname "Cancer Research Powerhouse."



1994

Inactivated GSTP1 gene found to initiate prostate cancer

SAGE technology allows simultaneous study of thousands of genes

Clonal markers are early sign that cancer could be detected in blood/ body fluids

National Familial Pancreatic Tumor Registry launches

1996

Genetic link between smoking and lung cancer identified

Telomerase identified as a biomarker for breast cancer

Urine test detects bladder cancer

Construction of new Kimmel Cancer Center buildings begins

1998 Saliva test for

head and neck cancer developed

Genetic cancer screening, testing and counseling for high-risk families starts

Prostate cancer specimen bank opens

**Duffy Family** Pain and Palliative Care Program established



Molecular markers point to earliest steps in lung cancer development

screening test for

cancer developed



1990

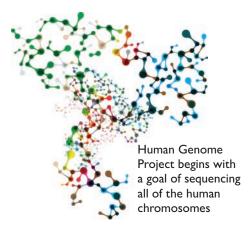


Martin D. Abeloff named Cancer Center director

Function of p53 gene pathway deciphered

1992

First Cancer Survivors Day celebrated



1993

Center is only NCI Cancer Center to earn multiple SPOREs

Among first to use 3D radiation simulation

Abnormal gene methylation found to turn off tumor suppressor genes

Chemo and radiation therapy before surgery helps esophageal cancer patients

Pediatric Long-Term Survivors Program starts 1995

Inpatient/Outpatient Center for outpatient bone marrow transplantation opens

Pediatric Bone Marrow **Transplant Center opens**  1997

Art of Healing Program established

Pediatric oncology joint fellowship with NCI starts

1999

Harry and Jeanette Weinberg Building opens

FLT3 gene cloned and linked to type of leukemia

America Online begins mailing their ubiquitous 3.5-inch floppy disks

