



# facts and figures 2003

## **The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins**

continues to be a leader in cancer research and treatment. Our investigators have developed the definitive laboratory models that have led to an understanding of how cancer starts, grows and spreads. Now, our clinical team is using this information to make the transition from understanding cancer to actually changing the course of the disease by translating progress in the lab to promise at the bedside.

# bench to bedside

## **Department of Oncology Statistics**

37 Basic Scientists  
28 Clinician Scientists  
28 Clinicians  
8 Biostatisticians  
38 Research Associates  
151 Postdoctoral Fellows  
187 Registered Nurses  
10 Social Workers  
355 Professional Staff  
946 Other Affiliated Staff

**1,124 Total Employees**

2,303 patients admitted  
19,414 total patients days  
8.4 days average patient stay  
62 medical oncology beds  
89% bed occupancy

28,257 outpatient visits  
18,609 chemotherapy infusions  
18,613 radiation therapy treatments

3,977 pediatric oncology outpatient visits

## **Cancer Center Membership**

253 Faculty Members  
27 Departments

## **Major Areas of Focus**

- Safety and quality
- Patient care
- Education and training
- Research
- Community outreach

# Leadership

## **Cancer Center Leadership**

*Cancer Center Director*

Martin D. Abeloff, M.D.

*Associate Director for Laboratory Research*

Stephen Baylin, M.D.

*Associate Director for Clinical Research*

David S. Ettinger, M.D.

*Chief Administrative Officer*

Terry Langbaum

*Director of Nursing/Hospital Administrator*

Sharon Krumm, Ph.D., R.N.

*University Administrator*

Rose Wollet

## **Program Leadership**

*Biostatistics*

Steven Piantadosi, M.D., Ph.D.

*Breast Cancer*

Nancy Davidson, M.D.

*Cancer Biology*

Stephen Baylin, M.D.

*Cancer Immunology and Hematopoiesis*

Curt Civin, M.D.

Drew Pardoll, M.D., Ph.D.

*Cancer Prevention and Control*

John Groopman, Ph.D.

*Gastrointestinal Cancers*

Scott Kern, M.D.

Manuel Hidalgo, M.D.

*Hematologic Malignancies*

Richard Ambinder, M.D.

Richard Jones, M.D.

*Pediatric Oncology*

Robert Arceci, M.D.

*Pharmacology and Drug Development*

Ross C. Donehower, M.D.

John Isaacs, Ph.D.

William Nelson, M.D., Ph.D.

*Medical Oncology and Solid Tumors*

Ross C. Donehower, M.D.

*Urologic Oncology*

John Isaacs, Ph.D.

William Nelson, M.D., Ph.D.

Michael Carducci, M.D.

*Viral Oncology*

S. Diane Hayward, M.D.



**THE SIDNEY KIMMEL  
COMPREHENSIVE CANCER CENTER  
AT JOHNS HOPKINS**

401 North Broadway

Baltimore, MD 21231

410-955-1287

Visit our Web site:

[www.hopkinskimmelcancercenter.org](http://www.hopkinskimmelcancercenter.org)

# facilities

## The Harry and Jeanette Weinberg Building

401 North Broadway  
Baltimore, MD 21231

## The Bunting♦Blaustein Cancer Research Building

1650 Orleans Street  
Baltimore, MD 21231

## The Johns Hopkins Children's Center

600 North Wolfe Street  
Children's Medical Surgical Center 800  
Baltimore, MD 21287

## Johns Hopkins Bayview Medical Center

4940 Eastern Avenue  
Baltimore, MD 21224

## The Johns Hopkins Kimmel Cancer Center at Green Spring Station

10753 Falls Road  
Falls Concourse, Suites 145 and 415  
Lutherville, MD 21093

{800 peer-reviewed journal articles were published in 2003}

## Origin of Multiple Myeloma Found in Rare Stem Cell

*Blood*, December 4, 2003  
**RICHARD JONES, M.D.**, principal investigator

Investigators identified a rare stem cell likely responsible for the development of multiple myeloma, a cancer of the bone marrow that destroys bone tissue. The research suggests that therapies designed for long-term cure of the disease should target this stem cell.

*This research was funded by the National Cancer Institute.*

## New Standard for Voice-Saving Care of Larynx Cancer Patients

*New England Journal of Medicine*, November 27, 2003

**ARLENE FORASTIERE, M.D.**, principal investigator

Results of a national clinical trial confirm that simultaneous treatment with chemotherapy and radiation preserves the voice of patients with advanced larynx cancer without compromising survival rates. The findings are compelling enough to have the combination treatment become the standard of care.

*This research was funded by the National Cancer Institute.*

## Better Model of Cancer Development Sheds Light on Potential Angiogenesis Target

*Cancer Cell*, October 2003  
**RHODA ALANI, M.D.**, principal investigator

Researchers have learned that a common, cancer-linked gene thought to control blood vessel growth may not be useful as an effective target for cancer drug development.

Findings from earlier studies that had pinned hope on the Id1 gene did not hold up in a mouse model thought to more accurately represent how humans get cancer.

*The research was funded by the National Institutes of Health, the Flight Attendant Medical Research Institute, the American Skin Association, and the V Foundation.*

## Modified Prodrug Targets Prostate Cancer Cells

*Journal of the National Cancer Institute*, September 2003

**SAMUEL R. DENMEADE, M.D.**, principal investigator

By modifying the natural plant compound thapsigargin so that it is activated only at metastatic sites, researchers have created a prodrug that selectively kills prostate tumor cells. In animal studies, tumors stopped growing when treated with the prodrug. Clinical testing for advanced prostate cancer is planned.

## Pancreatic Cancer Linked to Errant Reactivation of Cell Pathway

*Cancer Cell*, June 23, 2003  
**STEVEN LEACH, M.D.**, Paul K. Neumann Professor in Pancreatic Cancer, principal investigator

The accidental re-activation of a novel pathway following injury or inflammation of the pancreas may trigger the development of pancreatic cancer. Investigators are studying the use of drugs to deactivate the pathway and prevent these cancer-causing events from occurring.

*This research was funded by the National Institutes of Health, the Lustgarten Foundation for Pancreatic Cancer and a National Cancer Institute Gastrointestinal SPORE (Specialized Programs of Research Excellence) grant.*

## Fanconi's Anemia Genes Culprit in Early-Onset Pancreatic Cancer

*Cancer Research*, May 14, 2003

**SCOTT KERN, M.D.**, principal investigator

Three genes (BRCA2, FANCC and FANCG), long linked to a rare inherited

disease known as Fanconi's anemia (FA), appear to play a role in 10 percent or more of pancreatic cancers, usually occurring in patients in their 40s and 50s. These genes may be the Achilles' heel of the tumor, making them more responsive to treatment.

*This research was funded by a National Cancer Institute gastrointestinal SPORE (Specialized Programs of Research Excellence) grant.*

## Analysis of Gene Family Points to New Treatments for Colon Cancer

*Science*, May 9, 2003

**VICTOR VELCULESCU, M.D., PH.D.**, principal investigator

In what is believed to be the first systematic analysis of a disease-related gene family, investigators have uncovered gene mutations in the tyrosine kinase genome linked to more than 30 percent of colon cancers. These genetic alterations could serve as targets for new treatments.

*This research was funded by The Benjamin Baker Scholarship Fund, The National Cancer Research Alliance, and grants from the National Institutes of Health.*

## Blood Test May Predict Colon Cancer Risk

*Science*, May 14, 2003

**ANDREW P. FEINBERG, M.D.**, King Fahd Professor of Medicine, principal investigator

A simple blood test may provide physicians a way to identify those people who may be at higher than normal risk for the most common form of colon cancer. The research focuses on genetic "red flags" housed not in the sequence of the DNA building blocks themselves, but in other subtle modifications made to the genetic code.

*This research was funded by the National Cancer Institute and Maryland Cigarette Restitution Fund.*

## Common Thyroid Cancer Gene Mutation Found

*Journal of the National Cancer Institute*, April 16, 2003

**DAVID SIDRANSKY, M.D.**, principal investigator

A single genetic mistake is found to cause about two-thirds of papillary thyroid cancers. New therapies to counteract the mistake are now being studied. A mutation of the BRAF (pronounced b-raf) gene was found in 68 percent (24 of 35 samples) of papillary thyroid cancers. These tumors account for about 75 percent of all thyroid cancer and occur mostly in women. It is the first major genetic event identified for common thyroid cancers, according to Sidransky.

*This research was partially funded by the National Cancer Institute.*

## Embryo Cell Pathway Is Target for New Lung Cancer Therapy

*Nature*, March 5, 2003

**NEIL WATKINS, PH.D.**, principal investigator

Researchers have identified a primitive cellular pathway, called Sonic Hedgehog, which stays turned on long after it should be turned off in some lung cancers. They believe chronic injury to the lungs by cigarette smoking reactivates genes in the Hedgehog pathway to repair cell damage in the lining of the lungs. The ongoing and regular assault to the lungs by cigarettes causes the usually dormant pathway to be stuck in activation mode making too many new cells, ultimately resulting in cancer.

*The research was funded by the Flight Attendant Medical Research Institute and a National Cancer Institute lung cancer SPORE (Specialized Programs of Research Excellence).*

## Cancer Therapy May Offer Lupus Patients New Hope

*Arthritis and Rheumatism*, January 10, 2003

**MICHELE PETRI, M.D.**, principal investigator

High doses of the anticancer drug cyclophosphamide were used successfully to treat patients with moderate and severe forms of lupus, a chronic and sometimes fatal autoimmune disease.

*This research was funded by the National Institutes of Health and the Leukemia and Lymphoma Society of America.*

# Noteworthy

**Rhoda Alani, M.D.**, received the American Skin Association Research Scholar Award for her work on the genetics of melanoma.

Pediatric Oncology Director **Robert Arceci, M.D., Ph.D.**, King Fahd Professor of Pediatric Oncology, was elected a fellow of the American Association for the Advancement of Science.

**Donald Coffey, Ph.D.**, Catherine Iola and J. Smith Michael Professor of Urology, received a Distinguished Recognition Award from the Society of Urological Oncology and received the Valentine Medal from the American Urological Association.

**Nancy Davidson, M.D.**, breast cancer research chair in oncology, **Vered Stearns, M.D.**, and **Richard Zellars, M.D.**, were awarded more than \$700,000 from the Breast Cancer Research Foundation for studies of the drug anastrozole and a comparative study of partial breast radiation and lumpectomy versus whole-breast radiation. **Nancy Davidson, M.D.** was also a recipient of the Avon Foundation's Most Powerful Women in Breast Cancer award.

The West Harlem Environmental Action (WEACT) honored **Jean Ford, M.D.**, for prominence in establishing programs of community-based participatory research.

The Leukemia & Lymphoma Society's annual Stohlman Scholar Award went to pediatric oncologist **Alan Friedman, M.D.**

**Nicholas Gaiano, Ph.D., Mark J. Levis, M.D., Akhilesh Pandey, M.D., Ph.D.**, and **Roberto Pili, M.D.**, received Kimmel Scholars Awards from the Sidney Kimmel Foundation for Cancer Research.

**Gary R. Novak, RLATG**, was awarded the Charles River Medallion in recognition of his distinguished contributions to the field of laboratory animal management.

The Commonwealth Foundation gave **Drew Pardoll, M.D., Ph.D.**, Seraph Professor in Oncology, a \$2.27 million award for immunotherapy research.

**Ben Ho Park, M.D., Ph.D.**, is a V Foundation and Avon Foundation Scholar.

Under the direction of **Jane Shivnan, R.N., M.Sc.N.**, the Johns Hopkins Hospital nursing department earned Magnet status, the American Nurses Credentialing Center's highest honor.

The National Consortium of Breast Centers' Impact Award for lifetime achievement in breast cancer care and treatment went to **Lillie Shockney**, director of education and outreach for the Johns Hopkins Breast Center.

**Donald Small, M.D., Ph.D.**, the first recipient of the Kyle Haydock Professorship in Oncology, was awarded a five-year, \$750,000 Translational Research Award from the Burroughs Wellcome Fund for his research of the FLT3 gene in leukemia.

With 361 papers and over 100,000 citations to his credit, Science Watch named **Bert Vogelstein, M.D.**, Clayton Professor of Oncology and a Howard Hughes Medical Institute investigator, the most-cited researcher of the last 20 years (1983-2002).

**Victor Velculescu, M.D.**, was listed in *Popular Science* magazine's second annual *Brilliant 10*, a survey of researchers and academics to identify cutting-edge scientific accomplishments.