**Proof of Progress**

**Death rates from cancer are decreasing**

- 1975: 200%
- 1987: 150%
- 1995: 120%
- 2003: 90%
- 2011: 60%

**More Americans are surviving cancer and living longer**

- 1975: 30%
- 1987: 60%
- 1995: 80%
- 2003: 90%
- 2011: 95%

**Great strides have been made against some of the most common cancers**

- **Breast (female)**
  - 1975: 100%
  - 1987: 90%
  - 1995: 80%
  - 2003: 70%
  - 2011: 60%

- **Prostate**
  - 1975: 0%
  - 1987: 5%
  - 1995: 10%
  - 2003: 15%
  - 2011: 20%

- **Colon**
  - 1975: 5%
  - 1987: 10%
  - 1995: 15%
  - 2003: 20%
  - 2011: 25%

**Areas of Research**

- **Leukemia**
- **Liver Cancer**
- **Melanoma**
- **Bladder Cancer**
- **Brain Cancer**
- **Cancer**
- **Cell Biology**
- **Head and Neck**
- **Oncologist**
- **Pathologist**
- **Radiologist**
- **Surgon**
- **Biomedical Engineer**
- **Mathematician**
- **Nanotechnology**
- **RNA**
- **Epigenetics**
- **Immunotherapy**
- **Targeted therapy**

**Types of Cancer**

- **Prostate**
- **Breast (female)**
- **Colon**

**Innovations and Breakthroughs**

- **Discovery of RNAs critical to regulating cancer genes**
- **Understanding inflammation’s influence on tumors**
- **Transforming clinical trials for lung cancer**
- **Sequencing cancers to target tumors to target**
- **明细 of new cancer research paradigms**

**Damon Runyon Scientists**

- **Robert H. Vonderheide, MD, DPhil**
  - Duke University Medical Center
  - Damon Runyon Scholar ‘05–’07
  - Damon Runyon Fellow ‘08–’10
  - Damon Runyon-Lilly Clinical Investigator ‘00–’05
  - Abramson Family Cancer Research Institute
  - University of Pennsylvania
  - Philadelphia, Pennsylvania

- **John V. Heymach, MD, PhD**
  - The University of Texas
  - Investigator ‘00–’05
  - Stanford, California
  - Stanford University

- **Hai Yan, MD, PhD**
  - Houston, Texas
  - Damon Runyon Scholar ‘05–’07
  - Damon Runyon-Lilly Clinical Investigator ‘00–’05
  - University of Pennsylvania
  - Philadelphia, Pennsylvania

- **Elizabeth S. Sattely, PhD**
  - Durham, North Carolina
  - The University of Texas
  - Investigator ‘04–’09
  - Stanford, California
  - Stanford University

- **John V. Heymach, MD, PhD**
  - Philadelphia, Pennsylvania
  - University of Pennsylvania
  - Cancer Research Institute

- **Damon Runyon Cancer Research Foundation**
  - 2011 Annual Report

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**FIGURE:** Marshall, E. 2011. Cancer Research and the $90 Billion Metaphor. Science 331, no. 6024. JPG, from the nation’s most brilliant young scientists and funds research that impacts all cancers. Our scientists include physicians, chemists, and geneticists leading new fields like nanotechnology and transforming traditional ones like pathology. Their innovations have delivered a series of breakthroughs that are revolutionizing cancer research. Below, we offer a snapshot of the range of experts and scientific approaches that are converging to create a tipping point in cancer research.
Before the Damon Runyon "Dream旖, I didn’t appreciate the diversity of backgrounds required to tackle cancer."

Creating a New Model for Personalized Medicine
On the Blurred Lines of Personalized Medicine

Ivan H. Meisner, MD, PhD
Assistant Professor
Cancer Biology and Pharmacology
Princeton University, New Jersey

Dr. Nejal Meisner is shown standing in a lab.

Leveraging the Immune System to Attack Cancer

John V. Heymach, MD, PhD
Associate Professor and Investigator
University of Pennsylvania School of Medicine
Philadelphia, Pennsylvania

Dr. John V. Heymach is shown in a lab.

Using Chemistry to Identify Novel Anti-Cancer Compounds
Chemistry in Drug Discovery: Anti-Cancer

Elizabeth S. Sattely, PhD
Assistant Professor
Chemistry
Stanford University, Stanford, California

Dr. Elizabeth S. Sattely is shown standing in a lab.

Chemists have developed new drugs that could provide patients with more effective and personalized cancer treatments.

Leveraging This Tipping Point in Cancer Research requires an "all hands on deck" approach. It’s not enough to focus on a single cancer type, says scientist, strategist, and thought leader, John V. Heymach, MD, PhD, to develop new cancer treatments.

"We envision a future where..." Heymach says, "...we’re able to map pathways that are unique to a patient’s cancer, and develop individualized treatments that can be tailored to the needs of the patient."