

# 19 Research

"The beginning of health is to know the disease."  
Miguel de Cervantes, *Don Quixote*, 1605

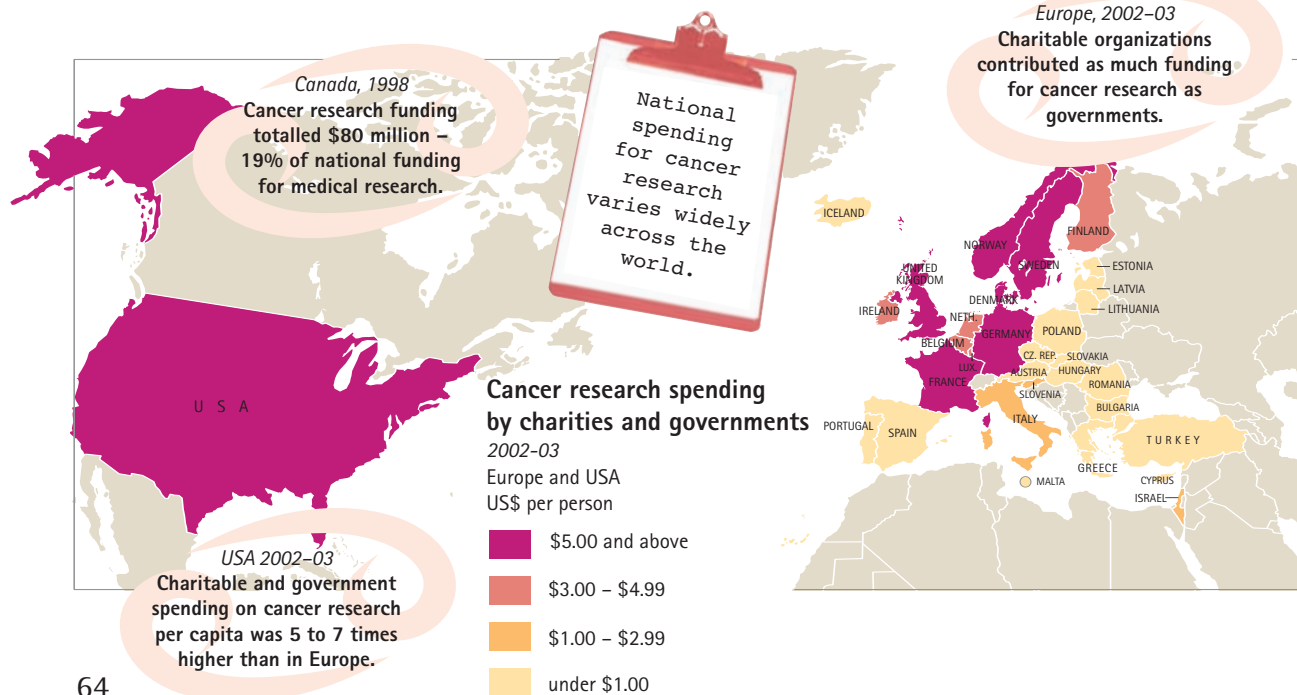
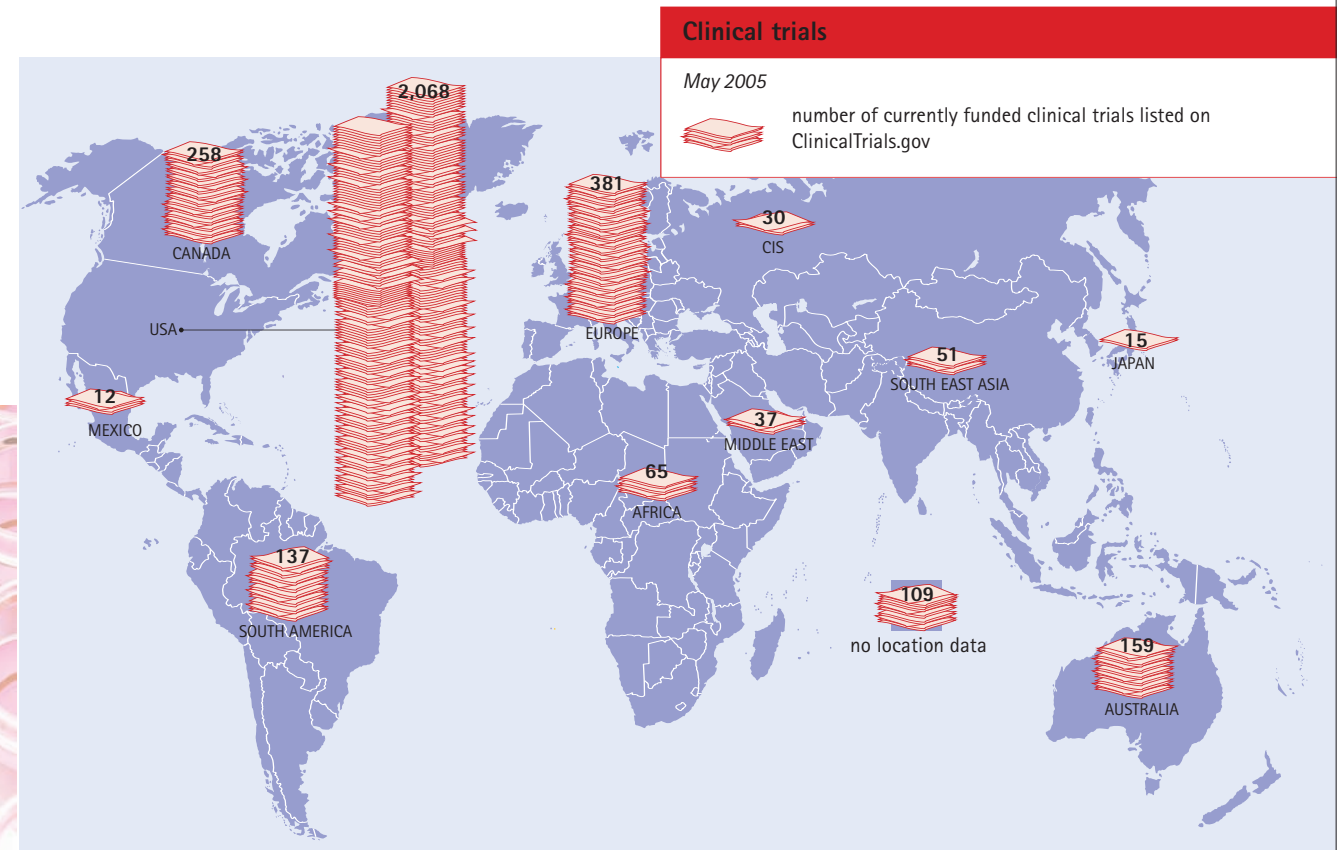
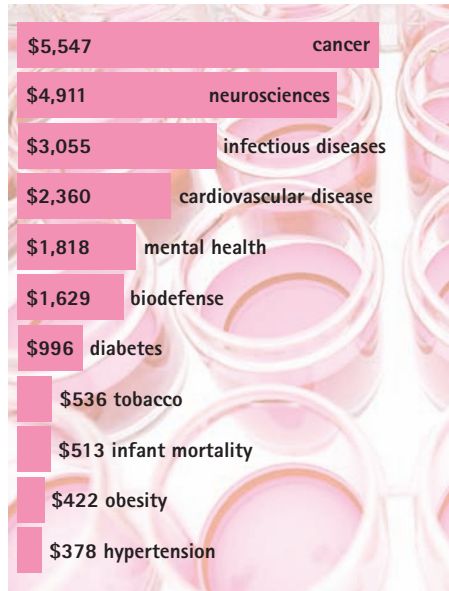
From the description of how a cancer cell works to the elucidation of the human genome, scientific advances in basic, clinical, and population-based cancer research, and their global impact, have been phenomenal. Recent developments have made available new and improved treatments that have both increased survival and decreased toxicity.

International collaborative efforts for cancer research have substantially increased. This has become the focus of organizations such as the International Network for Cancer Treatment and Research, International Agency for Research on Cancer, US National Cancer Institute, International Cancer Research Portfolio partners, and Bill and Melinda Gates Foundation. A tremendous expansion of the cancer

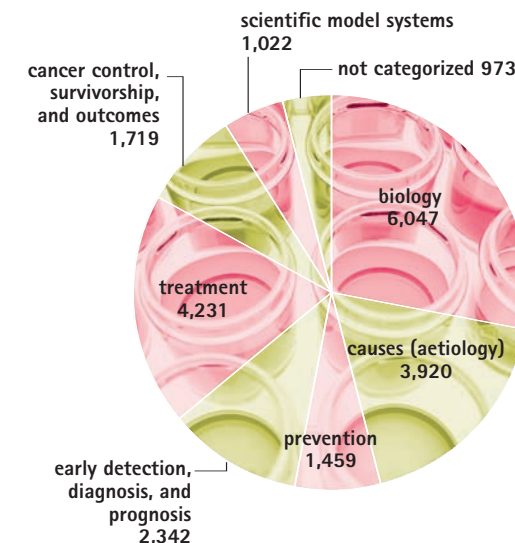
research and development industry has led to a massive increase in spending by for-profit entities such as pharmaceutical companies.

Despite these improvements, several challenges still remain. Developed countries must assure proper translation of cancer research into everyday clinical and public health practice. Developing countries should focus on building the capacity for research through collaborative projects that incorporate localized training and educational programmes. Scientists should focus on increasing the quantity and quality of research that provides knowledge about diverse populations and environments around the world. Additionally, the substantial worldwide disparity in research activities and funding needs to be addressed.

**Funding in USA**  
Grants, contracts and research conducted at the US National Institutes of Health 2004  
US\$ millions



**Studies in the International Cancer Research Portfolio database**  
Number in each research category 2004-05  
Total: 21,713 studies



*Europe & USA, 2002-03*  
Less than 10% of cancer research funding was allocated to prevention.

**Study protocols of the European Organization for Research and Treatment of Cancer**  
Number of protocols by treatment type July 2005  
Total: 752

