



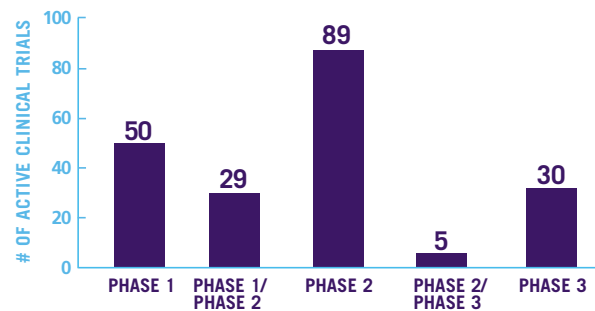
Bladder Cancer

A GIVING SMARTER GUIDE TO ACCELERATING RESEARCH PROGRESS *An Executive Summary*

MORE THAN 500,000 PEOPLE in the United States (U.S.) suffer from bladder cancer, and nearly 70,000 new cases are diagnosed each year. Bladder cancer is the fifth most common cancer in the U.S. and the most expensive cancer to treat. The standard of care for bladder cancer has remained unchanged for more than two decades, and therefore treatment options are very limited. In addition, nearly 80 percent of bladder cancers recur after standard first-line treatment, which underscores the limited efficacy of these therapies. Moreover, these treatments often require drastic lifestyle changes that diminish quality of life while falling far short of achieving cure.

The dearth of federal funding for bladder cancer is arguably the field's biggest limitation. Federal funding for bladder cancer is less than one percent of care costs and is woefully disproportionate to disease prevalence. The reduction in funding affects nearly every aspect of research, from the ability to attract and retain new talent to the ability to run innovative clinical trials—all of which the bladder cancer field so desperately needs.

ACTIVE BLADDER CANCER CLINICAL TRIALS



The bladder cancer field also faces other challenges that hamper progress, including:

- Lack of collaboration to effect systemic change
- Poor clinical trial infrastructure to support innovative studies
- Poor understanding of disease genomics

Although bladder cancer costs the U.S. economy more than all other cancers on a per patient basis,

GOVERNMENT INVESTMENT IS NOT PROPORTIONAL TO THE ECONOMIC BURDEN.

Despite the underinvestment in the field, recent progress has resulted from large-scale genomic profiling efforts. The Cancer Genome Atlas (TCGA) study, a major federal initiative to genomically profile patient tumor samples, has revealed new insights about bladder cancer biology that may affect future drug discovery efforts. In addition, newly identified genetic targets may be therapeutically relevant—thereby opening up new treatment possibilities for patients.

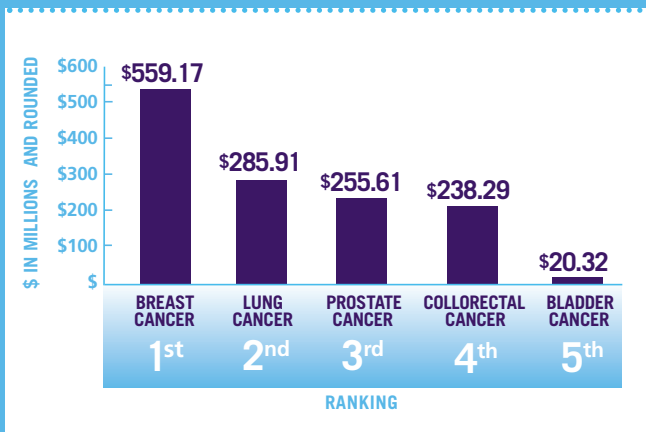
Overall, this is an exciting time for cancer research, as national attention on the disease has intensified. With the launch of the Cancer Moonshot and the Parker Institute for Cancer Immunotherapy, it is clear that both the public and private sectors are devoted to large-scale efforts to find more effective treatments for cancer. The bladder cancer field will benefit from these efforts; however, strategic investment in collaborative research models, infrastructure, and discovery science is essential.

Philanthropy is poised to tackle the field’s challenges because it is nimble enough to capitalize on the dynamic changes occurring in cancer research. Channeling private investment to incentivize multidisciplinary inter-institu-

tional collaboration can effectively address unanswered research questions. Private giving can also transform the ineffective clinical trial infrastructure that plagues the bladder cancer field. An infusion of funds to support creation of a coordinated clinical trial network would allow for innovative, adaptive trials. Finally, leveraging the success of TCGA, philanthropic giving can expand that large-scale genomic profiling effort to account for the full spectrum of genetic changes driving various bladder cancer subtypes. Although the Bladder Cancer Advocacy Network is leading the charge on genomic profiling of patient bladder cancer samples, much more can be done to bolster its efforts and eventually bring routine genomic sequencing to the bedside and thereby transform care. Harnessing the power of philanthropy to narrow the gap between funding and disease prevalence is what the bladder cancer field needs.

The Milken Institute Philanthropy Advisory Service has developed this Giving Smarter Guide for Bladder Cancer with the express purpose of empowering patients, supporters, and stakeholders to make informed, strategic decisions when directing their philanthropic investments and energy into research and development efforts.

TOP FIVE MOST COMMON CANCERS



QUICK FACTS

- > Bladder cancer is most common in elderly men
- > Men are four times more likely than women to develop bladder cancer
- > Women are more likely than men to have advanced tumors and a less favorable diagnosis
- > Bladder cancer is the most expensive cancer to treat on a per patient basis
- > Treatment options have not changed in more than 20 years
- > Smoking is the greatest risk factors for developing bladder cancer

FOR THE FULL GIVING SMARTER GUIDE, VISIT PHILANTHROPY.MILKENINSTITUTE.ORG/REPORTS

The Philanthropy Advisory Service, a program of the Milken Institute, counsels philanthropists, family offices, wealth advisors, and foundations seeking to make transformative investments in medical research. We provide comprehensive, digestible information that helps philanthropists evaluate research efforts and funding opportunities in various disease areas. Our analysis is shaped by scientific advisory boards, in-depth due diligence, and an objective framework for evaluation.

philanthropy.milkeninstitute.org