

# PANCREATIC CANCER FACTS

## THERE IS AN URGENT NEED TO END PANCREATIC CANCER

- Pancreatic cancer has the lowest five-year relative survival rate of any major cancer, at just **9 percent**.\*
- In 2016, pancreatic cancer moved from the fourth leading cause of cancer-related death in the U.S. to the third, surpassing breast cancer.
- **Pancreatic cancer is projected to move past colorectal cancer to become the second leading cause of cancer-related death in the United States around 2020.**
- Pancreatic cancer is the 11<sup>th</sup> most commonly diagnosed cancer in men and the eighth in women.
- It is estimated that in 2018, **55,440 Americans will be diagnosed** with pancreatic cancer, and 44,330 will die from the disease.
- Black Americans have the highest incidence rate of pancreatic cancer, between 24 percent and 61 percent higher than the incidence rates for other racial/ethnic groups.

## THERE ARE NO EARLY DETECTION METHODS

- Because the pancreas is located deep within the abdomen, and because pancreatic cancer can progress very quickly from stage I (localized within the pancreas) to stage IV (metastatic disease) in an average of 1.3 years, it is critical to develop early detection tools.
- **At this time, there are no proven biomarkers, or clues detectable in the blood or other bodily fluids, that could indicate the presence of a pancreatic tumor.**
- **The vast majority of pancreatic cancer cases are diagnosed in late stage.** More than half of patients are diagnosed once the disease has metastasized. Only about 10 percent of cases are diagnosed when the disease is still confined within the pancreas.
- Symptoms — including abdominal or back pain, weight loss, jaundice, loss of appetite, nausea, diabetes and changes in stool — are often subtle and are generally initially attributed to other less serious and more common conditions.
- The cause of the vast majority of pancreatic cancer cases is currently unknown.
- People diagnosed with new onset diabetes over age 50 have a six- to eight-fold higher risk of developing pancreatic cancer within three years. Further, 25 percent of pancreatic cancer patients are diagnosed with diabetes between six and 24 months prior to their pancreatic cancer diagnosis. Thus, new onset diabetes patients represent a unique population to study the biomarkers leading to pancreatic cancer.

## TREATMENT OPTIONS ARE EXTREMELY LIMITED; PATIENTS ARE UNDERTREATED

- While surgery (often the Whipple procedure) offers the best chance for survival, **fewer than 20 percent of pancreatic cancer cases are diagnosed early enough for surgical intervention.** Even with surgery, **the disease recurs in approximately 80 percent of these patients**, who die within five years of recurrence.
- For non-surgical candidates, chemotherapy — possibly with radiation — is typically offered but is not considered curative.
- Since 1974, only five drugs and a combination therapy have been approved by the U.S. Food & Drug Administration (FDA) to treat pancreatic cancer. Unfortunately, the new treatments offer most patients only a limited extension of survival and the vast majority of patients still rapidly succumb to their disease.
- Many pancreatic cancer patients go untreated or undertreated by standard therapies. A study showed that **38 percent of patients received no treatment at all within one year of diagnosis.** Even among patients diagnosed with early stage disease, 27 percent received no treatment, and only 47 percent underwent surgery. African Americans have the highest rate of diagnosis but undergo fewer surgical resections than other racial groups.
- Although enrolling in a clinical trial is often the best option for pancreatic cancer patients, **only about 4.2 percent of patients participate in clinical trials.** A complicating factor is that according to a recent survey, **nearly half of pancreatic cancer patients' treating physicians did not tell them about clinical trial options.**
- **We don't necessarily need a higher number of clinical trials, but we do need better designed clinical trials.** Over the past 25 years, only 15 percent of the agents tested in advanced pancreatic cancer phase III clinical trials have resulted in clinically meaningful progress for patients.

\*The population-based statistics refer to all kinds of pancreatic cancer. Unless otherwise noted, all other facts refer to pancreatic adenocarcinoma as "pancreatic cancer."

## IT'S TIME TO STEP UP OUR INVESTMENT

Recent research has shown that approximately 95 percent of pancreatic tumors are driven by mutations in a gene called KRAS. As a result of the Recalcitrant Cancer Research Act, the National Cancer Institute (NCI) launched the RAS Initiative in 2013 to focus on developing treatments that interfere with KRAS in pancreatic cancer as well as the 30 percent of other forms of cancer that are driven by RAS.

- Thanks to the Recalcitrant Cancer Research Act, the NCI is also making progress on understanding the relationship between pancreatic cancer and diabetes; evaluating screening protocols for biomarkers for early detection; and immunotherapy. Research has shown that pancreatic tumors are surrounded by more dense fibrotic tissue, known as the stroma, than are most other solid tumors. Investigators are now focused on deciphering the role of the stroma in cancer progression and response to treatment.
- A 2016 study identified four subtypes of pancreatic cancer based on molecular changes allowing researchers to now focus on determining which treatments are best aligned with these patient characteristics.
- **We have made important progress in understanding pancreatic cancer, but the continued low survival rates dictate an urgent need to create more focus on this disease.**

## IT'S TIME TO STAND UP AND WAGE HOPE

The Recalcitrant Cancer Research Act was signed into law in 2013 with overwhelming bi-partisan support. It defined recalcitrant, or deadliest cancers, as those cancers with a five-year survival rate below 50 percent and required the NCI to develop and implement scientific frameworks ("strategic plans") to improve outcomes for patients facing the deadliest cancers, beginning with pancreatic and lung cancer. As a result, the NCI has created new funding opportunities, along with new consortia, partnerships and task forces to address the priorities identified in the pancreatic cancer framework. For example, in addition to the RAS Initiative mentioned above, the NCI and National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) are partnering to develop a major cohort study to better understand the relationship between new onset diabetes and pancreatic cancer, which could lead to an early detection tool for this high-risk group.

The Pancreatic Cancer Action Network is doing its part to accelerate progress by investing more than \$48.5 million in research and awarding research grants to 158 researchers at 58 institutions in just 15 years. Likewise, our best-in-class clinical initiatives, including Know Your Tumor<sup>®</sup>, the Patient Registry, and Precision Promise<sup>SM</sup> are gathering clinical and molecular data to generate important insights and improve patient outcomes.

## IT'S TIME TO ACT BOLDLY

While curing the over 200 diseases we call "cancer" is no simple task, pancreatic cancer stands out as one of the most challenging and most deadly. Currently, the majority of patients are sent home to get their affairs in order. Our goal is a future in which every pancreatic cancer patient works with their physicians to determine which of many effective and targeted treatment options will not only ensure their survival, but also ensure that they continue to thrive. That future is in our reach, but it depends on Congress continuing to take bold steps to make it a reality.

The 114<sup>th</sup> Congress took a strong stand by providing a \$2 billion increase for the National Institutes of Health (NIH) in FY2016 and by allocating \$300 million in additional funding for the NCI's implementation of the Cancer Moonshot in the FY2017 Continuing Resolution (CR). The 115<sup>th</sup> Congress also acted boldly by appropriating an additional \$2 billion increase for NIH in the FY2017 Omnibus Appropriations bill. But these increases are not nearly enough. We call on Congress to continue to forge a path that spurs innovation to conquer our toughest medical challenges, like pancreatic cancer and the other deadliest cancers.

## THE PANCREATIC CANCER ACTION NETWORK CALLS ON THE 115<sup>TH</sup> CONGRESS TO ACT BOLDLY BY:

- Supporting \$36.2 billion for the National Institutes of Health (NIH) in FY2018, including \$6 billion for the National Cancer Institute (NCI) and the funding provided from the 21st Century Cures Act.
- Continuing to include pancreatic cancer in the Department of Defense's Peer Reviewed Cancer Research Program (PRCRP) and providing a funding increase for the program above the FY2017 level.
- Supporting a strong federal commitment to those suffering from the deadliest cancers — defined by the Recalcitrant Cancer Research Act of 2012 as cancers with five-year survival rates below 50 percent — by joining the Congressional Caucus on the Deadliest Cancers, and by ensuring that there are no lapses or reductions in health coverage for this critical population.
- Continuing to monitor the implementation of the Recalcitrant Cancer Research Act — legislation that is opening new avenues of NCI-supported research for pancreatic cancer.