

Fighting Pancreatic Cancer in the Laboratory of Todd W. Bauer, M.D.

In the 1970s, only three percent of patients with pancreatic cancer survived for five years. Despite 30 years of tremendous progress in diagnosing and treating other types of cancer, the five-year survival rate for pancreatic cancer remains a dismal five percent. Pancreatic cancer affects nearly 37,000 people in the United States each year, and approximately 33,000 people die from this disease annually.



Positioned to be a National Leader

Dr. Todd Bauer, assistant professor of surgery in the division of surgical oncology, is developing a research program at UVA that seeks to understand the biology of pancreatic cancer and translate that understanding into novel, effective therapies for patients. As a regional referral center for patients with pancreatic cancer, UVA is ideally positioned to become a leader in this field. Our expertise in treating patients and our nationally recognized programs in cancer research have earned Dr. Bauer and the UVA Cancer Center a strong reputation in the field of pancreatic cancer.

Innovative Research with Promise

Cancer research typically focuses on the primary tumor. However, what ultimately kills patients with most cancers is not the primary tumor, but metastases, or the spread of cancer. By understanding how metastatic cells are different from the cells in the

primary tumor, new therapies to prevent tumor growth and metastasis can be designed. Dr. Bauer's laboratory has recently demonstrated that blocking the protein uPAR decreased growth of human pancreatic cancers in mice. In addition, blocking the protein prevented tumors from invading nearby tissues. Now his team is working to determine how best to employ this targeted therapy and identify additional molecular targets.

Research has also shown that not all pancreatic cancers are the same. The genetic profile of each tumor is different, and this accounts for the varied responses seen in patients treated with newer therapies. By studying different tumor specimens, Dr. Bauer's team hopes to move toward designing highly selective therapies, specifically customized to a patient's particular cancer. Dr. Bauer's program will bring these new therapies to patients, using new drugs to target molecular pathways in cancer tumors. This approach represents the best hope for many patients, and offers the most likely path to major breakthroughs in pancreatic cancer treatment.

Funding Future Research

The discovery of more effective treatments for pancreatic cancer—treatments that give hope and precious time to patients and families—is not just the work of physicians and researchers. It requires philanthropic support from committed partners. At this stage, the annual cost to support Dr. Bauer's research program is approximately \$310,000. In order to ensure continued research in pancreatic cancer, we are seeking private support to help fund Dr. Bauer's lab for the next five years.

Pancreatic cancer is a devastating disease, but with your support, UVA can be a leader in developing powerful new targeted therapies that can save thousands of lives annually and improve the quality of life of many more.

For more information on joining this effort, please contact Joshua Scott at (434) 243-8432 or (800) 297-0102.