

# INVESTING IN

# hope

Philanthropy in action at the UVA Cancer Center

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## SPOTLIGHT ON RESEARCH

### Searching for a Way to Beat the Odds

**DESPITE 30 YEARS** of tremendous progress in diagnosing and treating other types of cancer, the five-year survival rate for pancreatic cancer remains at five percent. UVA has taken the lead in changing that fact.

Todd Bauer, M.D., seeks to understand the biology of pancreatic cancer and translate that understanding into new therapies for patients. Bauer's laboratory has recently demonstrated that blocking the protein uPAR decreased the growth of human pancreatic cancers in mice and prevented tumors from invading nearby tissues. And, by studying the genetic profile of pancreatic tumors, Bauer hopes to begin designing highly selective therapies, specifically customized to a patient's particular cancer.

With early support from the Patients & Friends Research Fund, Bauer's team was able to leverage their initial findings into larger, federally-funded grants. With continued support, UVA can develop powerful new targeted therapies that can save thousands of lives annually and improve the quality of life of many more.



Patients & Friends chair Julie Speasmaker in the lab of Todd Bauer, M.D.



Debbie Ryan celebrates after winning her 700th career game in November 2009.

## Coach, Cancer Survivor, Advocate

### *Debbie Ryan's Drive to Succeed*

**L**egendary UVA women's basketball coach Debbie Ryan has always been a fighter.

But even 20 years of success on the basketball court couldn't prepare her for a diagnosis of pancreatic cancer in August 2000.

"I knew what pancreatic cancer meant, and knew my chances of survival were dismal. My thought was, 'Well, I've had a good life, I'll see you all,'" Ryan remembers today.

Yet, Ryan was determined to beat the odds. Her growth was small enough to be removed, and after six weeks of radiation and chemotherapy at UVA she was given a clean bill of

health. One year later, Ryan coached the U.S. team to a gold medal in the World University Games in Beijing.

Her cancer, it turned out, was a gift. A few months after Ryan's diagnosis, then Virginia State Senator Emily Couric was diagnosed with the same disease. The two women became friends through their illness.

"It was Emily who encouraged me to speak about my cancer in public," Ryan says. "And so I've learned to reach out to other people and families in this position. I've had the distinct pleasure of talking with hundreds of people who have been diagnosed

*CONTINUED ON BACK COVER*



Mark B. Williams, Ph.D., with colleague Patricia Judy, Ph.D.

# To Beat Breast Cancer, Find It Early

## Research at UVA Advances Diagnostic Breast Imaging

**B**reast cancer screening made headlines in November, after a federal task force released controversial, new recommendations. Since then, a vigorous public debate has ensued on the benefits, risks, and limitations of current screening protocols.

A quieter, but equally important, discussion has been underway for some time in breast care centers across the country. Today, mammography and ultrasound are the primary tools used for diagnosis and screening, but there is growing agreement that additional techniques are needed, techniques that would improve accuracy and reduce costs for both patients and hospitals.

An innovative project currently underway at UVA aims to meet these needs. For more than a decade, Mark B. Williams, Ph.D., associate professor of

radiology, biomedical engineering, and physics, has been developing a unique breast scanner that combines the power of two cutting-edge imaging techniques – 3D digital mammography and 3D molecular, or functional, imaging. 3D digital mammography is being studied by a number of academic and commercial centers, but only here at UVA is it being explored for use in conjunction with 3D molecular imaging.

### The Power of Functional Imaging

In a mammogram, small tumors can be almost impossible to detect within areas of dense tissue, even for highly skilled radiologists. Functional imaging can be used to overcome this problem. Cancer cells behave differently than normal cells and stand out in functional image scans, even if they are buried within dense



Representatives from local Panera Bread cafés present a check to David Brenin, M.D., and Jennifer Harvey, M.D.

## Community Partners Make a Difference, Raise Awareness

**THIS PAST OCTOBER**, Panera Bread cafés throughout Charlottesville, Harrisonburg, Warrenton, Winchester, and Ranson, West Virginia, teamed up to celebrate National Breast Cancer Awareness Month with a number of in-store promotions, including a specialty bagel and pink silicon rings that read "Fight Like a Girl." Together, their efforts raised more than \$13,000, which was generously donated to the UVA Breast Care Program.

## Fighting Lung Cancer

**E**very day, some 440 Americans die of lung cancer. In the UVA Cancer Center, David Jones, M.D., and his colleagues are working to improve these outcomes.

A nationally recognized researcher, Jones has helped to establish promising clinical trials in lung cancer at UVA. His team is primarily focused on two key projects. The first attempts to identify why lung cancers are resistant to chemotherapy. The second seeks to understand why lung cancers tend to metastasize (or spread) more than many other cancers. Both studies could have a powerful impact on patients with lung cancer.

Moving this research forward quickly is critical to patients. Toward that end, a private contributor has offered to match dollar-for-dollar all gifts made to these research programs, up to a total of \$1,250,000. The matching offer extends to December 31, 2012. Gifts of any size are deeply appreciated and will help UVA offer new hope to lung cancer patients everywhere.

For more information on joining this effort, please contact the Health System Development Office at (434) 924-8432 or (800) 297-0102.



David Jones, M.D.

areas of the breast. By combining structure and function in a single 3D model, Williams' scanner provides an unprecedented amount of information to clinicians, radiologists, and surgeons.

### Early Success

In 2009, Williams began a small pilot study to test his device. Early results have exceeded expectations. In one patient, the scanner was able to detect a cancerous tumor that had been missed in earlier mammograms.

"In this case, 3D molecular imaging was able to detect a small cancer hidden in an area of dense breast tissue," explains Williams. "Since the molecular image was precisely aligned with the 3D digital mammogram, radiologists were able to locate the tumor based on its anatomical surroundings."

Williams will need to conduct larger studies to gain federal approval. But, he is looking forward to the day when his scanner might be available in breast care centers across the country. About the same size as a regular mammography unit, the device uses mild, pain-free compression, and would be cheaper to use than advanced imaging techniques like MRI—a perfect option for women with only a moderate risk for the disease.

Williams is also looking back, with gratitude. He received early support for his work in the form of a \$50,000 grant from the Patients & Friends Research Fund.

"Patients & Friends funding played a key role in moving this project to where it is today," says Williams. "Every researcher dreams that someday their work will change people's lives for the better, but innovations in healthcare are always the result of many people working together."

## IN THEIR *own words*

**I**t was a warm Saturday in November, and Laura Cortina had been running for hours. Literally.

A financial planner living in Tyson's Corner, Virginia, and a UVA alumna (College '04), Cortina was participating in an IronMan competition in Panama City, Florida.

It's a challenging race that includes a 2.4-mile swim in the ocean, 112-mile bike ride, and a full marathon. Simply completing the race is a major accomplishment, but Cortina has never been one to shy away from a challenge.

While this was not her first IronMan, it was her most meaningful. In the year leading up to the race, Cortina adhered to an intense training regimen, but also used her experience to raise money to support the melanoma clinical trials program at the Human Immune Therapy Center at the UVA Cancer Center. Her motivation was personal.

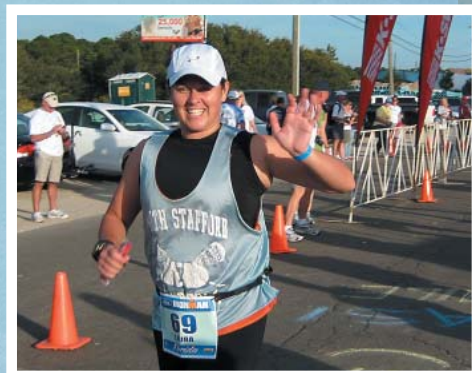
In 2007, a high school friend, Mike Dailey, had been diagnosed with stage 3 melanoma. After countless tests, several major surgeries, and radiation therapy, Dailey decided to pursue a melanoma vaccine trial at the UVA Cancer Center, under the direction of Craig Slingluff, M.D.

"He knew that participating in a clinical trial would help advance the knowledge of how to treat melanoma in the future, and that gave him purpose," remembers Cortina. "His cancer was so aggressive, and yet I never heard him give up hope."

By November, Cortina had raised more than \$16,000 to support melanoma clinical trials at UVA. Unfortunately, Dailey was not able to congratulate her. After a brief period of hospice care, he passed away over the summer. But, for Cortina, his presence was everywhere on race day.

"Throughout the race, I was thinking about Mike, about all his friends and family that were waiting for me to finish. That was enough to get me through," she says.

Cortina crossed the finish line after 15 grueling hours. She was wearing Dailey's high school lacrosse jersey, just another way she chose to honor — and remember — a good friend.



Laura Cortina at IronMan Florida.

### SPOTLIGHT EVENT

## Women's Four Miler

Thank you! The 27th annual Charlottesville Women's Four Miler, held on September 5, raised \$330,000 for the UVA Cancer Center's Breast Care Program, and a record number of participants raised money through personal sponsorships.



## Enter the Pink Zone

For one game only, the UVA women's basketball team gives up their orange and blue jerseys for a good cause. Be sure to catch Debbie Ryan and her team as they take on the University of North Carolina on February 15th, on ESPN2.

To purchase tickets, visit [www.virginiasports.com](http://www.virginiasports.com).  
For \$4 tickets to the game, use the promotional code ABCDE at checkout.



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### Debbie Ryan

CONTINUED FROM COVER

with cancer, especially pancreatic cancer," she says. "My cancer has made me a better person, a better coach, and a better mentor."

And cancer made Ryan a fierce advocate for other cancer patients. Together with Couric, Ryan hosted a sold-out concert by Mary Chapin Carpenter that raised more than \$100,000 for patient support services in the UVA Cancer Center. A few years later, after Couric's death in 2001, Ryan hosted a second successful concert on her own.

The two shared more than a warm friendship, Ryan says. They shared a vision for what cancer care could be like at UVA. The two women pushed the University to begin plans on a new patient care facility, and last April, the University broke ground on the Emily Couric Clinical Cancer Center, a state-of-the-art facility that will house the most

powerful cancer-fighting treatments and technologies—and space and programs designed to address patients' personal and emotional concerns as well.

For some people, these efforts might be more than enough. But for Ryan, they are just a start. Recently, she joined the UVA Cancer Center Board, and, on the court, Ryan and her team host a "Pink Zone" game at UVA each year. The national initiative is designed to raise breast cancer awareness on the court, across campuses, and in communities.

Ten years after her diagnosis, Ryan can list a series of remarkable milestones—700 wins on the court, 26 post-season tournament appearances, and an induction into the Women's Basketball Hall of Fame. But 2010 will mark an extraordinary personal milestone for her as well: ten years, and counting, as a survivor of pancreatic cancer.

It's a fight she's winning every day, and a fight she's determined to help countless others win as well.