Jefferson Launches Colon Cancer Vaccine Trial

For 12 years, a multidisciplinary team of Jefferson researchers and clinicians have worked to create a vaccine that enhances the body’s efforts to fight colorectal cancer. The goal is to boost a patient’s own immune response to target and destroy any cancer cells remaining after surgery for tumors.

Clinician-researchers at Jefferson are currently testing a vaccine for patients with colorectal cancer. The goal is to boost a patient’s own immune response to target and destroy any cancer cells remaining after surgery for tumors.

First, the researchers identified a protein expressed by the colon cancer that acts as an identification tag. Much like flu vaccines train the immune system to fight cells infected with flu virus, this experimental cancer vaccine would teach the immune system to recognize and destroy cancer cells expressing this marker that begin to grow in new locations throughout the body.

“In this trial, we hope to see patients develop a strong immune response to the target protein,” said immunologist Adam Snook, PhD, a research instructor in the Department of Pharmacology and Experimental Therapeutics at Thomas Jefferson University, and lead researcher for the vaccine. “A strong immune response would give us hope that the vaccine is working as we expect.”

The final test—whether the cancer returns or not—won’t be known for a number of years and additional clinical trials.

If the vaccine does work as expected, one shot could both protect patients against the cancer cells that remain in their system after surgery and offer lifelong protection from a recurrence.

More than 140,000 people in the US are diagnosed with colorectal cancer every year. It is a leading cause of death from cancer in both men and women.

Learn more—see the story and video. Visit www.jeffersonhospital.org and search “colon cancer vaccine trial.”

The researchers are seeking 44 patients to participate in this initial clinical trial. For more information and to learn if you may be eligible to enroll in the trial, call 877-503-9352.

Advancing Research for Parkinson’s Disease Cure

Jefferson has entered into an unprecedented partnership with the Michael J. Fox Foundation for Parkinson’s Research (MJFF) and Taconic to enable access to critical tools needed to advance research for a cure for Parkinson’s disease. A genetically engineered construct developed by the Department of Neuroscience at Jefferson’s Farber Institute for Neurosciences is being used to create, validate and distribute a rat model at a reasonable cost and availability to academic and industry researchers that will foster understanding of neurons that are affected in Parkinson’s disease.

Fighting Disease with New MitoCare Center

Thomas Jefferson University recently launched the MitoCare Center within the Department of Pathology, Anatomy and Cell Biology to help uncover the causes of mitochondrial disease—using leading-edge technology and researchers hailing from diverse disciplines.

The Center also plans to build an online resource for patients and physicians looking for more information about these diseases.

The Important Role of Mitochondria

Mitochondria—known as the “powerhouse” of cells—are specialized compartments present in every cell of the body except red blood cells. Between 1,000 and 4,000 children are born with a primary mitochondrial disorder every year, according to the United Mitochondrial Disease Foundation, but many individuals with primary mitochondrial disease develop symptoms only in adulthood. When mitochondria break down, the cell and the tissues made from those cells lose energy and don’t function efficiently. Malfunctioning mitochondria are responsible for a variety of diseases and disorders including neurodegenerative diseases, cancer, and heart disease.

About the MitoCare Center

Newly renovated space at Jefferson Alumni Hall now houses the Center’s advanced microscopy facility, the mitochondrial metabolism facility, and other advanced systems that are helping reveal new aspects of mitochondrial biology.

Led by Jefferson’s lead mitochondrial researcher, Gyorgy Hajnoczky, MD, PhD, the Center also includes inaugural faculty members Jan B. Hoek, PhD, Suresh K. Joseph, PhD, Gyorgy Coardas, MD, and Erin L. Seifert, PhD.

MitoCare has strong ties to Wills Eye, the Kimmel Cancer Center at Jefferson, the Center for Translational Medicine, and the Departments of Emergency Medicine, Neurology, Biochemistry, and the Farber Institute for Neurosciences.

Learn more about the Center – visit www.jeffersonhospital.org and search “MitoCare.”

TJUH Named One of ‘100 Hospitals with Great Orthopedic Programs’

According to Becker’s Hospital Review, hospitals included on its “Great” list have orthopedic surgery departments, programs, or dedicated centers that have earned considerable recognition and often include physicians who provide outstanding patient care, advance cutting-edge orthopedic research, and treat professional athletes.

Thomas Jefferson University Hospitals is home to the largest orthopedic surgery program in the Delaware Valley. The Hospitals’ Spinal Cord Injury Center is one of the first in the country to treat spinal disease with stereotactic radiosurgery. The Department of Defense recently provided a three-year, $1 million grant to Jefferson Orthopedics researchers to develop treatments that could aid in recovery of joint function for members of the military who have injuries from combat. In addition, the Hospital has received recognition from Blue Cross Blue Shield as a Blue Distinction Center for hip and knee replacements.

The Medical Coronary Care Unit at Jefferson, now part of the Cardiovascular Intensive Care Unit, is the recipient of a silver-level Beacon Award for Excellence from the American Association of Critical-Care Nurses (AACN). The award recognizes individual units that distinguish themselves by improving every facet of patient care.

VITAL SIGNS: DECEMBER 2013

Admissions
Length of Stay
Patient Days
Outpatient Visits

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Jefferson Researcher Receives $50,000 for Breast Cancer Research

Sandra Fernandez, PhD (left), a research assistant professor in Medical Oncology, received a $50,000 award from the PA Breast Cancer Coalition (PBCC) for her work on breast cancer. The funds will help Dr. Fernandez study how breast cancer becomes more aggressive and how it metastasizes (spreads) to other organs. Specifically, she will look at how drugs that are in development for lung cancer might also help keep breast cancer from spreading to other organs. The project is part of a larger partnership with Jefferson medical oncologist Massimo Cristofanilli, MD (right), Director of the Largest Volume Breast Oncology, received a $50,000 award from the PA Breast Cancer Coalition (PBCC) for her work on breast cancer. The funds will help Dr. Fernandez study how breast cancer becomes more aggressive and how it metastasizes (spreads) to other organs. Specifically, she will look at how drugs that are in development for lung cancer might also help keep breast cancer from spreading to other organs. The project is part of a larger partnership with Jefferson medical oncologist Massimo Cristofanilli, MD (right), Director of the largest volume program in the United States. Jefferson's program is also one of the highest-volume programs in the United States.

Leading the Way in Treating Pancreatic Cancer

Recently, Jefferson’s surgery teams performed their 1,000th Whipple procedure since tracking the number of this type of surgery here began in 2005. Our teams perform more of this life-saving, complex operation—and pancreatic resections for pancreatic and related cancer patients—than any other hospital in the tri-state region. Jefferson’s program is also one of the highest-volume programs in the United States.

“I am proud to say that we are rated well below the benchmark from the National Surgical Quality Improvement Program (NSQIP) when it comes to mortality and complications from Whipple surgery,” said Charles J. Yeo, MD, FACS, the Samuel D. Gross Professor and Chair of Surgical Oncology, who leads the team. “The Legacy of Miles Mack

A long-time Jefferson staff member in the Transportation Department, Miles Mack was passionate about serving his community and created the Xtra-Miles Developmental Basketball League in the Manata section of Philadelphia. His basketball league provided neighborhood children with a productive outlet for personal development through sport, while exposing area youth to positive role models and the benefits of education. Tragically, Miles was taken away by the crime and violence he so desperately worked to prevent.


Reminder: Jefferson Goes Smoke-Free on April 1

No Ifs, Ands, or Butts: Quit Now—Michelle Liow of Otolaryngology Did

“I started working in ENT [Department of Otolaryngology] and seeing patients come in with cancer really had an effect on me,” said Michelle. “It scared me, and I knew I needed to do something about this.”

After 10 years of smoking, Michelle Liow, Medical Assistant, Otolaryngology, decided it was time to quit. When asked what the turning point was, she explained, “I started working in ENT [Department of Otolaryngology] and seeing patients come in with cancer really had an effect on me. It scared me, and I knew I needed to do something about this.”

Michelle’s Story

So how did Michelle quit?

She was advised by Joseph Spiegel, MD, Otolaryngology, to try weaning herself off of cigarettes. So instead of quitting cold turkey, Michelle reduced the number of cigarettes she smoked each day and soon was down to one a day. And then one day she said, “This is it, my last one.” And she’s been smoke-free for three years. Sometimes she still feels like she needs a cigarette, but has learned how to overcome the urge. “I kept myself busy—doing laundry, cleaning the dishes, going for a walk, calling a friend—anything to take my mind off of having a cigarette. And it worked,” she shared.

Resources for Quitting Smoking

The American Cancer Society research found the greatest contributing factor in success for smokers seeking to quit is a great support system. Jefferson has many resources available to help our staff quit smoking, including a buddy program, as well as JeffQuit.

Remembering a Fallen Colleague, Recognizing Outstanding Community Service

Eighteen Jefferson nominees were recently recognized for their outstanding work in the community. Among them, Robert Bartosz, Director of Finance, Jefferson Graduate School of Biomedical Sciences, was presented with the Miles Mack Community Service Award. Robert received a $1,000 donation from Jefferson for his charity of choice. Each of our honorable mention nominees received $250 toward their charities of choice.

The Legacy of Miles Mack

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More Info on JeffQuit

JeffQuit is the area’s leading hospital-based smoking cessation program. Based on a proven method, JeffQuit maximizes success by gradually decreasing the amount of nicotine over a three-week period—providing the greatest reduction of withdrawal symptoms. The program includes one group session each week, and combines the following elements to maximize success during the treatment process:

• Three powerful sessions with a stop-smoking expert
• Stop-smoking aids
• Hypnosis
• Individual support and coaching

Learn more and register by calling 1-800-JEFF-Now or visit www.jeffersonhospital.org/jeffquit.
PEOPLE

Vice President for Nursing Research Meg Bourbonniere, PhD, RN, was elected Chair-Elect of the Health Sciences Section of the Gerontological Society of America at their annual meeting in New Orleans, LA. She will serve a three-year term for the international organization.

Robert L. Brent, MD, PhD, DSc, Distinguished Professor, Pediatrics, received the John Scott Award at The American Philosophical Society in Philadelphia. Dr. Brent was selected for his meritorious work on "environmental causes of birth defects including environmental exposure to drugs, chemicals, ionizing radiation, microwaves, and ultrasound." Dr. Brent has been a faculty member at Jefferson Medical College for 56 years and at Alfred I. duPont Hospital for Children for 24 years.


Post-doctoral researcher Claudia Capparelli, PhD, recently received a $10,000 award from the Outrun The Sun Foundation for her research project to help find better targeted therapies for malignant melanoma, the most deadly and fatal form of skin cancer.

The Philadelphia Psychiatric Society honored Kenneth M. Corta, MD, DFAPA, Director of Jefferson’s Adult Acute Service and Residency Program, with the Daniel Blain Award for dedication and service to the profession of psychiatry at the annual Benjamin Rush Awards Reception. The social event also recognized Richard L. Jaffe, MD, with the Psychiatric Educator of the Year Award and Richard M. Sobel, MD, with the Practitioner of the Year Award.

Miloz Faber, PhD, a researcher in the Department of Microbiology and Immunology, was awarded a $100,000 Grand Challenges Explorations grant funded by the Bill & Melinda Gates Foundation for his project entitled "Development of a Single Dose Contraceptive Rabies Vaccine." The grant is intended to further his goal of developing a vaccine to prevent rabies in dogs, which is often associated with human rabies cases that account for over 70,000 deaths each year.

Jefferson Energy Manager Randy Haines, CEM, CLEF, MCVP, BEP, CSOP, was elected the 2014 President of the Association of Energy Engineers (AEE). Former Vice President of AEE’s Region I, President of the Greater Philadelphia AEE Chapter, and winner of several association awards, he was also inducted into the AEE Energy Managers Hall of Fame.

Terry Johnson, Director of Business Analysis, Decision Support, for TJUH, received the University HealthSystem Consortium's Most Engaged Coordinator Award for her work involving the Operational Data Base Program, which provides meaningful comparisons of operational performance measures among similar institutions.

Melissa A. Lazar, MD, has been appointed a breast surgeon at the Jefferson Breast Care Center and Assistant Professor of Surgery. Dr. Lazar completed her general surgery residency at Jefferson and fellowship in Breast Oncology at Northwestern Memorial Hospital.

Michael Neiman, TJUH Senior Director of Accreditation and Regulatory Affairs, has earned the credentials of a Certified Joint Commission Professional (CJCP). The CJCP represents the highest level of accreditation knowledge and achievement in related patient safety and quality issues.

Interventional radiologist Susan Shamimi-Noori, MD, has been appointed Assistant Professor in the Department of Radiology and a practicing clinician at Jefferson. Specializing in using x-ray and ultrasound technologies to perform minimally invasive procedures, she completed her fellowship at Northwestern Memorial Hospital and was a resident at the University of Pennsylvania.

ACHIEVEMENTS

Jefferson researchers have discovered that the formation of blood clots follows a different molecular route in African Americans versus European Americans, providing a new understanding of the effects of race on heart disease. The findings could one day help doctors provide more individualized treatment of heart disease and other blood-clot-related illnesses.

Jefferson researchers found that occupational therapy using the principles of Sensory Integration (OT-SI) provided better outcomes for parent-identified goals than standard care, according to their study, “An Intervention for Sensory Difficulties in Children with Autism: A Randomized Trial” published in the Journal of Autism and Developmental Disorders. OT-SI therapy identifies an autistic child’s type of sensory difficulties and then designs playful activities to help make sense of the sensation.

Cancer progression may be linked to cancer-causing protein cyclin D1 in part via microRNA biogenesis. The findings were reported in the journal Nature Communications by physician-researchers at Jefferson’s Kimmel Cancer Center (KCC), who are examining the biological mechanisms of breast cancer.

Medical students can be taught to be more empathetic toward patients by viewing and discussing scenes from movies that illuminate the patient’s perspective, according to the Jefferson study “Enhancing and Sustaining Empathy in Medical Students,” published in Medical Teacher. Increased physician empathy has been shown to be associated with improved patient outcomes.

A drug used to treat a type of lymphoma has shown surprising benefit in preclinical studies of inflammatory breast cancer and is set to be tested in a clinical trial, according to researchers at the KCC. The study, published in the Journal of Experimental Therapeutics and Oncology, was conducted in collaboration with The University of Texas MD Anderson Cancer Center and supported by a Promise Grant from the Susan G. Komen Foundation.

OF NOTE

TJUH has earned full recertification from The Joint Commission for its Advanced Ventricular Assist Device (VAD) Program.

Jefferson’s Physician Assistant Program has been awarded a $1 million Economic Growth Initiative Grant from the state of Pennsylvania, allowing for expansion of the new program.

TJU was the recipient of an Overall Performance Award in the category “Private Professional or Specialized Institutions” from the Council for Advancement and Support of Education (CASE). The award recognizes our educational fundraising programs based on data submitted for the last three years to the Council for Aid to Education’s Voluntary Support of Education survey.

The TJUH Interactive Marketing/Social Media team won a Silver Award in the Best Social Networking category as part of the 2013 healthcare Leadership Awards from Strategic Health Care Communications. Entries were evaluated against industry standards of excellence and how they compared with organizations in their group classification.

Leadership News at Jefferson

• John Ekarius has joined Jefferson as Executive Vice President & Chief Operating Officer for TJU and the TJUH System.
• John Kairys, MD, FACS, has been appointed to the role of Chief Medical Information Officer for TJU and TJUH.
• Kathy Gallagher has been named Executive Vice President & Chief Administrative Officer for TJU.
• Elizabeth Dale is now Jefferson’s Senior Vice President and Chief Development and Alumni Relations Officer.

Jefferson’s 2013 United Way campaign raised more than $226,000, an increase of more than $8,000 over the previous year. The donations from our staff will go to help those in need in our community.

Thank You for Supporting Our Mission

Jefferson received 79 online donations, 30 of which were from new donors, on the second annual “Giving Tuesday,” a national, social-media-driven movement to establish an official kick-off to the holiday giving season. The $14,450 in gifts received will aid our mission to educate professionals who will lead the integrated healthcare and research teams of tomorrow, find better targeted therapies for malignant melanoma, the most aggressive and deadly form of skin cancer.

New Measures to Ensure Safety

As a demonstration of our continued commitment to the highest levels of patient safety, a new precautionary initiative is now in place at Jefferson in the form of a monitoring system to safeguard infants and young children in our hospital. The system was installed in the fall in all Women and Children care areas on Jefferson’s Center City campus. All infant and pediatric patients are now required to wear a tamper-proof tag that will trigger an alarm and lock down the unit if someone attempts to remove the patient or the tag without authorization.

In addition, Jefferson has enacted enhanced security rounds. Twelve new patrol sergeants have been hired to round on University and Hospital buildings and surrounding areas on campus through a new community policing program that operates 24 hours a day, seven days a week.
**QUIET SMOKING IN 3 WEEKS**

JeffQuit is the area’s leading hospital-run smoking cessation program, based on a proven method. JeffQuit maximizes your success by gradually decreasing the amount of nicotine over a three-week period—providing the greatest reduction of withdrawal symptoms.

The cost is less than a month worth of cigarettes—$199 for Jefferson employees, and $249 for the general public.

To Register, Call 1-800-JEFF-NOW www.jeffersonhospital.org/jeffquit