UNIVERSITY OF PENNSYLVANIA
Abramson Cancer Center
Creating Knowledge, Providing Hope

PENN'S Abramson REPORT

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Oncology Nurses Honored for Excellence

The Abramson Cancer Center of the University of Pennsylvania and Hospital of the University of Pennsylvania (HUP) recently achieved Magnet status – the highest institutional honor awarded for nursing excellence in the country. For perspective, only about 4% of the 5,756 hospitals in the country are designated Magnet hospitals.

"It serves as a benchmark or 'gold standard' for consumers and attracts the most qualified nurses in the field," says Debra Dearstyne, RN, OCN, Interim Nurse Floor Manager for leukemia and lymphoma patients. "Our nurses pass other hospitals in their daily commute, but they come to work at Penn to be on the frontline of developing new therapies and nursing excellence."

To achieve Magnet status, a hospital must undergo a rigorous review process demonstrating they are committed to sustaining nursing excellence, improving professional practice, and transforming the culture of a work environment.

In achieving the Magnet designation, nurses at the Abramson Cancer Center and HUP were given high marks for their low turnover, high job satisfaction, and the percentage of patients who were satisfied with their care. Patient satisfaction numbers were the highest in the region. The Magnet status also counted the education level of the nurses, demonstrating that Penn has the largest number of bachelor-degreed nurses at the bedside.

Penn's Department of Nursing follows a Shared Governance model, which allows nurses the ability to collaborate on decisions that impact clinical care, quality improvement and nursing practice. In addition to their expertise at the bedside, oncology and other specialty nurses serve on every committee at the hospital. "Nurses can make changes if the system is not working, and our voices are heard within the institution," says Debra Dearstyne.

On one hand, the Magnet designation is just another recognition for the nearly 80 nurses who work at the Abramson Cancer Center with cancer inpatients. It has not changed the level of care provided to patients, but it does illustrate the staff's commitment to excellence. The nurses work with oncologists to care for cancer inpatients throughout the continuum of cancer care. From diagnosis to follow-up plans after treatment, the comprehensive care by nurses improves patient outcomes.

This is particularly evident in the clinical space labeled Rhoads 6 and Rhoads 7 at HUP, where cancer patients receive bone marrow or stem cell transplants and can stay for an average of six weeks. Debra works closely with Kirsten McClintock, RN, Nurse Manager for Rhoads 6, to carry out this patient-centered approach to medicine.

"Just as our nurses choose Penn's Abramson Cancer Center, our patients choose to come here for the level of care shown by the nurses and other members of their medical team," stressed Debra Dearstyne. "I continue to be a nurse here because our patients and staff feel that something special is going on."

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Pictured are the family, friends of the late Maxine Silver and Abramson Cancer Center staff. Maxine Silver, a patient of Dr. Kevin Fox, never stopped caring and encouraging women battling breast cancer. Maxine was beloved by many for her great spirit. Her son Robert Bell has established the Maxine Silver Fund here at the Abramson Cancer Center to honor Maxine's spirit into perpetuity.

A Message from the Director



Craig Thompson, MD

Faculty and staff excellence. Research breakthroughs. World renowned cancer programs. Penn's Abramson Cancer Center embodies all of these characteristics to lead to a comprehensive approach to patient care.

In this issue of Penn's Abramson Report, *we turn a spotlight on our oncology nurses who are integral partners with our physicians and have been nationally honored for their excellence. One of our nurses said it best, "I continue to be a nurse here because our patients and staff feel that something special is going on." We profile Rachel Colleluori who is a perfect example of this excellence, but who has an added personal story inspiring her passion for this work.*

Our researchers continue to make exciting advances. One team has shown a better way to deliver drug therapies to tumors that makes the dose last days instead of hours. Another team led by Dr. El-Deiry has tested a combination drug therapy that may be effective in the treatment of colon cancers.

We also highlight our thyroid cancer surgery program and explore the exciting contributions of its team members. One of the team members, Dr. Fraker, has distinguished himself for his surgical excellence, a fact exemplified by the patient we profile in this issue. Suren Airapetian is a high school student who was told at the age of 16 that nothing could be done to treat his thyroid cancer. Instead of giving up, he turned to Dr. Fraker for treatment and is now healthy and active.

I am proud that Dr. Fraker will bring his expertise to his new role as the Deputy Director of the Clinical Services and Programs at the Abramson Cancer Center. He joins Dr. Lerman who is focusing on the cancer research activities to complete my strong leadership team.

I hope you enjoy reading these articles, and I continue to appreciate the Abramson Cancer Center's many friends who, like you, support our efforts through their philanthropy. It is through your generosity that we are able to continue to make advances in the prevention, diagnosis, and treatment of cancer. Thank you for making it all possible.

Craig B. Thompson, M.D.

Basic and Translational Research Update: Wafik S. El-Deiry



Dr. Wafik El-Deiry (center) with members of his Molecular Oncology laboratory team.

Wafik El-Deiry, M.D., Ph.D., is an expert physician-scientist in cancer biology who studies the complexities of translational drug development on tumor growth. Dr. El-Deiry is one of the senior members of Penn's Abramson Cancer Center and is the editor of *Cancer Biology & Therapy.*

His basic science lab explores the cell cycle and cell death of tumor cells that are resistant to drug therapies. Specifically, Dr. El-Deiry's group looks at the pathways that determine whether cells are resistant to certain drug therapies and how to make these cells more receptive to drug therapies. His lab team identified a combination therapy as a way to sensitize resistant human cancer cells to a treatment currently being tested in colon cancer clinical trials. Dr. El-Deiry and colleagues recently administered TRAIL, a tumor necrosis factor, and sorafenib, an inhibitor currently used to treat renal cancer, to mice with colon cancer. The sorafenib and TRAIL therapy in combination reduced the size of tumors in mice with few side effects, demonstrating the potential effectiveness of the combined treatment on human colon cancers.

In the future, Dr. El-Deiry plans to explore additional pathways sorafenib may be working through to increase TRAIL sensitivity and to compare the effectiveness of other drugs. "In addition to proposing a combination therapy that's rational, non-toxic, and effective in preclinical trials, our findings open up new avenues of molecular exploration for designing targeted anti-cancer therapies," said Dr. El-Deiry.

The Penn team reported their findings in the July issue of the medical journal, *Cancer Cell*.



Stephen Caplan (middle), along with his family, presents a check to Drs. John H. Glick and Grant Liu to support the Special Needs Program at the Abramson Cancer Center and the Children's Hospital of Philadelphia through gifts received at his Bar Mitzvah.

PATIENT PROFILE

A Young Survivor's Story: Surgical Excellence



Suren Airapetian

For Suren Airapetian, a student at Northeast High School, the night of September 15, 2005 started out like any other night. He was sitting at home with his grandmother watching television and then she noticed a large lump protruding from his neck. Frightened by the mass, Suren went to his family physician who coordinated scans that revealed nothing irregular until almost a year later, when Suren would go to have a biopsy performed. Unfortunately, the biopsy didn't bring favorable results. At the age of 16, Suren was diagnosed with thyroid cancer.

On September 15, 2006, Suren underwent his first surgery at St. Christopher's Hospital for Children. After a lengthy procedure, the doctor concluded that there was nothing that could be done; the cancer had spread too far. This is when Suren was referred to Douglas Fraker, M.D., at the Abramson Cancer Center of the University of Pennsylvania.

Dr. Fraker, still unsure of whether or not he would be able to help Suren, scheduled him for surgery the very next day. During surgery, Dr. Fraker assessed Suren's cancer at a very advanced stage and in order for him to treat it effectively, he would have to remove the diseased thyroid in two separate surgeries. A month after he removed half of Suren's thyroid, Dr. Fraker performed the second operation and he successfully removed the rest of Suren's thyroid as well as multiple lymph nodes to which the cancer had also spread.

Although relieved to have the surgery portion of his treatment finished with, Suren still had to undergo radioactive iodine treatment (RAI) – a procedure used to kill any remaining cancerous cells that requires a patient's complete isolation for extended periods of time. This was not an easy process for a high school student to go through, but Suren took it in stride. During his recovery from surgery, Suren's teachers would visit his home and tutor him in his studies. When he began his RAI, Suren taught himself from his textbooks, never falling behind in his studies. In fact, when he returned to school, he was actually ahead of the other students.

Now cancer free, Suren has jumped back into his regular lifestyle of studying, watching movies and skiing with his family. He explains that when he first told his friends about his disease, "they were surprised because they never knew anyone who had cancer." Suren and friends have happily resumed playing regular racquetball games, holding weekly championship games.

Suren is a high school senior with dual enrollment at Manor College where he is getting a head start on his collegiate studies. He had always been interested in building things and thought he would study engineering, but after his battle with cancer has decided to pursue studies in medicine, surgery in particular. Suren says, "I don't know where I would be right now if it weren't for Dr. Fraker. When other doctors said my cancer was inoperable, he went in and saved my life."



Suren and his friends

Excellence at Penn: World Renowned Thyroid Cancer Program

The Thyroid Cancer Program at Penn's Abramson Cancer Center is one of the largest thyroid cancer programs on the East Coast. The team, made up of world-class experts in the fields of endocrinology, surgery, pathology, cytology, nuclear medicine, radiation oncology and other disciplines, takes a multidisciplinary approach to the treatment of thyroid disorders in an effort to provide the best possible treatment options and outcomes to patients.

In the United States, there are approximately 33,550 new cases of thyroid cancer diagnosed every year. Depending on the stage and type of thyroid cancer, a treatment regimen will involve a combination of surgery and radioactive iodine. Patients who are thought to be at high risk for reoccurrence may also undergo conventional radiation therapy.

Susan J. Mandel, M.D., M.P.H., Director of the Thyroid Cancer Program, and her colleagues have established a multidisciplinary Thyroid Nodule Clinic to evaluate and treat patients with nodular thyroid disease. The team uses minimally invasive ultrasound-guided needle biopsy of the thyroid and state of the art imaging using advanced technology such as Positron Emission Tomography (PET) for the most comprehensive evaluation of thyroid neoplasms. Dr. Mandel and her team also utilizes the I-123 isotope for pre-radioactive iodine therapy scans, which has shown to have better imaging characteristics and results in lower radiation doses to the patient.

Douglas L. Fraker, M.D., Chief of Endocrine & Oncologic Surgery, and another key member of the team, uses a minimally invasive approach when performing thyroidectomies (complete removal of the thyroid). Through the use of a harmonic scalpel device, he has been able to cut the size of the incision by almost half and operating room time has also decreased dramatically allowing for many of these surgeries to be performed on an outpatient basis.

"Considering the incidence of the disease, we have a very large volume of thyroid surgeries," states Dr. Fraker. With over 400 thyroid surgeries carried out each year, the Thyroid Cancer Program surgical team performs about 1.5 percent of all thyroid surgeries in the United States.

Ara Chalian, M.D., an expert in reconstruction surgery for Head and Neck cancer patients, including microvascular surgery, is another key member of the surgical team. In additional to his clinical role as Director of Facial Plastic Reconstruction, Dr. Chalian has researched photodynamic therapy treatment for use with thyroid cancer and conducted a hyperbaric oxygen trial for wound healing in patients undergoing laryngectomy surgery after radiation therapy.

Marcia S. Brose, M.D., Ph.D. studies the use of novel targeted drug treatments for thyroid cancer patients whose tumors could not be killed using more traditional treatment options. Currently, she is in a Phase II trial to look at the use of BAY43-9006 in patients to determine if the drug will effectively prevent tumor growth, assess any side effects of the drug, and find any markers in the patient's blood to better understand who may benefit from this treatment.

Drs. Mandel, Fraker, Chalian, Brose, and other physicians and scientists of the Thyroid Cancer Program use a comprehensive approach to thyroid cancer to enhance treatment and detection and move new ideas to the bedside quickly so patients around the nation benefit from advances immediately.



Susan J. Mandel, M.D., M.Ph.

NEW Abramson FACULTY

The Abramson Cancer Center is pleased to welcome the following individuals to Penn as new faculty members.



Naomi Haas, M.D., a medical oncologist specializing in prostate and kidney cancer, has joined Penn's faculty. Dr. Haas received her medical degree from Northeastern Ohio Universities College of Medicine. Dr. Haas, formerly of Fox Chase Cancer Center, said of her decision to come to Penn: "I was attracted to the wide range of colleagues and collaborative opportunities at the University of Pennsylvania." Dr. Haas's work in developing targeted therapies for prostate cancer, which looks to identify molecular characteristics of damaged or broken genes, will bolster the Abramson Cancer Center's commitment to innovative treatment and comprehensive care.



Frank Leone, M.D., M.S., FCCP, is a nationally recognized smoking cessation expert who has been recruited to Penn's Lung Center to focus on lung cancer prevention efforts. Dr. Leone received his medical degree from the University of Pittsburgh School of Medicine and received his Master's of Science in Clinical Epidemiology from the University of Pennsylvania. He previously worked at Thomas Jefferson University.



Dan J. Powell, Jr., Ph.D., a Research Assistant Professor in the Department of Pathology and Laboratory Medicine, has been successfully recruited to Penn's Center for Research on the Early Detection & Cure of Ovarian Cancer. Dr. Powell will also serve as Deputy Director of the Clinical Cell and Vaccine Production Facility, a core facility within the Abramson Cancer Center. Dr. Powell was recruited from the National Cancer Institute to develop novel immunotherapeutic strategies for the treatment of ovarian cancer. He completed his doctoral training at Thomas Jefferson University.



Nathalie Scholler, M.D., Ph.D., an international expert in antibody engineering, early ovarian cancer detection, and improving diagnostic tests has started at Penn's Center for Research on Early Detection & Cure of Ovarian Cancer. Dr. Scholler comes to Penn from the Fred Hutchinson Cancer Research Center in Seattle. Previously, she was a senior researcher at Seattle Genetics Inc. and at the Pacific Northwest Research Institute (PNRI). She received her medical degree and doctoral training in France.

Penn's Abramson Cancer Center will benefit greatly from the wide range of experience and specialized knowledge of each of these four individuals.

Correction: In the last issue of *Penn's Abramson Report*, the photos of new faculty members David Jaffe, M.D., John Plastaras, M.D., Ph.D. and Paul Wissel, M.D., were incorrectly identified. We apologize for the error.

ABRAMSON CANCER CENTER Calendar of EVENTS

February

Penn Women's Basketball Game – "Think Pink"

Saturday, February 9, 2008 - 7:00 P.M.
The Palestra, 220 South 32nd Street, Philadelphia

In part with the Women's Basketball Coaches Association, Penn Women's Basketball will host the "Think Pink" initiative to raise breast cancer awareness and funds for breast cancer research at Penn's Rena Rowan Breast Center. If interested, please call Laura Rostock at 215-746-2948.

16th Annual Monopoly Tournament & Auction-

Friday, February 22, 2008 - 6:30 P.M.
Philadelphia Marriott Downtown,
1201 Market Street, Philadelphia

Bob Toll, Chairman & CEO of Toll Brothers, Inc. will serve as the Chairman of the Annual Monopoly Tournament and Auction benefiting Penn's Abramson Cancer Center and the American Cancer Society. The Sixteenth Annual Monopoly Tournament will be held on Friday, February 22, 2008 at the Philadelphia Marriott Downtown, 1201 Market Street.

The evening includes a fully seated dinner, a Monopoly Tournament, casino games, a cocktail reception, a fantastic band, and fabulous silent and live auctions that will feature a variety of great prizes. This event is black tie optional. Please contact Susan Supowitz for further information at 215-938-8033 or ssupowitz@tollbrothersinc.com.

April

The Philadelphia Crystal Ball 2008

Thursday, April 3, 2008 - 6:00 P.M.
Crystal Tea Room, Wanamaker Building
1201 Market Steet, Philadelphia

The Annual Philadelphia Crystal Ball is an evening of dinner, dancing and honors to support the Teal Ribbon Ovarian Cancer Research Foundation. The foundation helps to fund Penn's Center for Research on Early Detection & Cure for Ovarian Cancer. Please contact Luli Canuso for further information at 215-606-7031.

Spring

Educational conferences for patients of the Abramson Cancer Center, as well as their families and friends, are held on a regular basis throughout the year. Call 1-800-789-PENN (7366) to register.

March 1	Prostate Cancer (Free Screenings available)
March 14	Focus on Gastrointestinal Cancers Conference
April 4	Focus on Gynecologic Cancers Conference
May 2	Fifth Annual Focus on Melanoma

SPOTLIGHT:

Oncology Nurse: Passionate Compassion

Rachel Colleluori is a typical member of the exceptional oncology nursing team at the Abramson Cancer Center. She has worked for two years on Rhoads 7, a floor in the Hospital of the University of Pennsylvania (HUP), where blood cancer patients come for the most comprehensive and advanced treatments in the region.

Rachel describes her experience of working with bone marrow transplant cancer patients as "magical," and says "she likes to work over the holidays because her patients and their families are happy." She recounts the satisfaction of helping to treat a 30-year old patient who was given less than 1% chance of surviving. He is now healthy one year after his bone marrow transplant, back at work, and continues to visit the floor with his wife.

"Have a smile and enjoy what you can get out of life."



Rachel Colleluori

But Rachel has a family history of blood cancer that differentiates her from her colleagues and fuels her passion to help patients and their families survive their cancer experience. Rachel first decided to enter the medical science profession at the age of nine when her father passed away from leukemia. While this shaped her desire to focus on oncology, She recently had to face another close family member receiving a similar diagnosis, further shaping her desire to focus on oncology.

On the same day that Rachel started working at the Abramson Cancer Center, her younger cousin, Nick Colleluori, was diagnosed with Non-Hodgkin's Lymphoma. Nick, a Division I lacrosse player at Hofstra University, sought treatment at the Abramson Cancer Center knowing he would be receiving comprehensive care with a patient-centered approach. With his family, Nick bravely faced a year-long battle which included chemotherapy, a stem-cell transplant, and extensive radiation treatment.

After his death, Rachel joined her family in an effort to support Nick's vision of promoting cancer awareness and research to help eliminate this disease. Nick had created a foundation, which has continued to grow. In keeping to Nick's wishes of thanking the staff who cared for him in his battle, the foundation provided Thanksgiving dinners for nearly 100 medical staff and families who had loved ones hospitalized at Rhoads 6 and 7 at HUP. The foundation has also started to help fund the special, out-of-pocket needs of cancer patients and their families at the Abramson Cancer Center.

Rachel recently had a patient that reminded her of her father, but instead of becoming discouraged, Rachel says she was energized to give back more to her patients. She follows her cousin Nick's motto of "Have a smile and enjoy what you can get out of life."



A family member enjoys Thanksgiving dinner at HUP. The food and volunteers were provided by the Headstrong Foundation – started by Rachel's cousin, Nick Colleluori.

Faculty Excellence

Ernest F. Rosato, M.D., was recently named the first recipient of the Friends of the American Cancer Society's Humanitarian Award. The award recognized his more than 30 years of clinical and research achievements in the field of surgery. Currently, Dr. Rosato serves as a gastrointestinal surgeon at the Hospital of the University of Pennsylvania where he focuses on the complex surgery of the gastrointestinal tract, particularly the esophagus, pancreatobiliary and colorectal carcinoma. In addition to the prestigious Humanitarian Award, Dr. Rosato was awarded The William Y. Inouye Faculty Award in Surgery at PENN Medicine. He has received this annual award, selected by the Chief Residents, 13 times since 1985.



Ernest F. Rosato, MD

Dr. Rosato also serves as an example by working with his family for the past three years to host a golf tournament in memory of his daughter, Sarah Marie Rosato. The Sarah Rosato Invitational benefits the Abramson Cancer Center's Survivorship/Living Well After Cancer program.

Go with the flow: Penn Researchers Show a Better Way to Deliver Drug Therapies to Tumors

Through a basic science breakthrough, researchers at Penn have discovered a better way to deliver drugs to tumors. The research team used rod-shaped nanoparticles – about the size of a blood cell – composed of a commonly used plastic to deliver the anticancer drug paclitaxel to a human lung tumor tissue implanted in mice. Because the rod-shaped particles remained in the blood stream for up to one week after injection, they delivered a more effective dose than the current delivery system which uses spherical nanoparticles and only stays in the bloodstream for a few hours. The new delivery system killed more cancer cells and shrank the tumors to a much greater extent.

"These rod-shaped particles go with the flow," says Dennis E. Discher, Ph.D., Professor of Chemical and Biomolecular Engineering at Penn's Institute for Medicine and Engineering. "The blood stream is constantly pumping, and these cylindrical nanoparticles align with the flow and persist in circulation considerably longer than any known spherical particles."

While these findings could impact the way lung cancer is treated, this discovery of how to more effectively deliver drugs to the body also holds promise in improving the treatment of other types of cancers and illnesses such as cardiovascular disease.

Planned Giving Highlights

Your generous gift to the Abramson Cancer Center can benefit you or loved ones as well!

Charitable Remainder Unitrust

Establishing a Charitable Remainder Unitrust is ideal for you if (1) you are younger and would therefore prefer a payment stream that fluctuates with the market rather than a fixed annuity (2) you would like to diversify stock holdings without the drawback of high capital gains taxes and (3) you would like to provide significant future support to the Abramson Cancer Center.

The Charitable Remainder Unitrust, whether trusteed by Penn or by an outside party, provides these advantages, as well as a current charitable income tax deduction.

To set up the Charitable Reminder Unitrust, you transfer cash, securities or other appreciated property into a trust. The trust pays a percentage of the value of its principal, which is re-valued annually, to you or to beneficiaries you name. When the trust terminates, the remainder passes to Abramson Cancer Center.

For a personalized illustration or information about other tax-advantaged gift options, contact:

Christine S. Ewan, J.D.
Associate Director, Planned Giving
215.898.5341

Please remember the Abramson Cancer Center in your will. Make your bequest to *"The Trustees of the University of Pennsylvania, a nonprofit corporation organized and existing under the laws of the Commonwealth of Pennsylvania, for the use of the Abramson Cancer Center."*

New Abramson Cancer Center Leadership

Douglas L. Fraker, M.D. has been named to the newly-created position of Deputy Director, Clinical Services & Programs, at the Abramson Cancer Center. In his new role, Dr. Fraker serves as the senior advisor to the Center's Director and Health System's leadership on clinical services and associated programmatic initiatives.

"In his new position, Dr. Fraker will bring his years of clinical and administrative experience to further enhance our mission of delivering a wide array of cancer services in an integrated, program-based approach," commented Craig B. Thompson, M.D., Director of the Abramson Cancer Center. "He's just the right person to lead a critically important area of our cancer center."

Prior to joining Penn in 1995, Dr. Fraker was a Senior Investigator at the National Cancer Institute. He won the Penn Medicine Award of Excellence in 2006 and as Chief of Oncologic Surgery, is renowned for his laparoscopic procedure for liver tumors and specialized surgical techniques for thyroid cancer, melanoma, and sarcoma.

Dr. Fraker will be working in partnership with Caryn Lerman, Ph.D., who last year was named Scientific Director and Deputy Director for NCI Programs. Dr. Lerman is an international leader in the cancer control research field and recently received the Cancer Control Award from the American Cancer Society, Pennsylvania Division's Southeast Region and the 22nd Annual Alton Ochsner Award Relating Smoking and Health from the American College of Chest Physicians.

Dr. Lerman continues to perform dual duties as the Director of Penn's Transdisciplinary Tobacco Use Research Center.



Dr. Caryn Lerman (center) received the Cancer Control Award from (left to right) American Cancer Society, Pennsylvania Division Southeast Region Vice President Patrick Delaney and Region Board President Marie DeStefano.



Penn students, Drew Feith Tye (left), former Philanthropy Chair of Sigma Delta Tau, and James Saksa, former Philanthropy Chair of Sigma Phi Epsilon, joined their two Greek houses to raise money and awareness of cancer among Penn students.

FOR INFORMATION OR APPOINTMENTS

We hope you never need us. But if you do, please know that we are here for you with a "patients first" attitude and a compassionate environment to offer hope and comfort to those who need it most.

Call 1-800-789-PENN or visit our website at www.pennhealth.com/abramson

For the latest information about cancer — visit our award-winning Internet resource, OncoLink, at www.oncolink.org

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