

February 2013

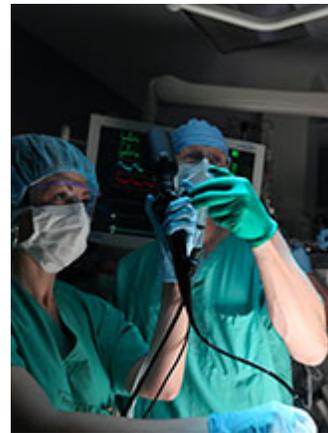


Multidisciplinary Team

Complete Lung/Thoracic Cancer Care

Interventional pulmonologist Jennifer W. Toth, M.D. and thoracic surgeon Michael F. Reed

Cancer of the lung is often serious and complex, and not only requires several distinct treatment methods, but also the expertise of dedicated specialists. At Penn State Hershey Cancer Institute, the lung/thoracic oncology team of medical oncologists, radiation oncologists, thoracic surgeons, pulmonologists, and radiologists focuses specifically on thoracic malignancies, particularly lung cancer. Treatment plans reflect the combined expertise of many highly experienced and internationally recognized specialists involved in the care of patients with both primary and secondary lung cancers. The multidisciplinary team includes:



Medical Oncology

- [Salah Almokadem, M.D.](#)
- [Chandra P. Belani, M.D.](#)

Radiation Oncology

- [John Varlotto, M.D.](#)
- [Henry Wagner, Jr., M.D.](#)

Thoracic Surgery

- [David B. Campbell, M.D.](#)
- [Jussuf T. Kaifi, M.D., Ph.D.](#)
- [Michael F. Reed, M.D.](#)

Radiology

- [Rekha A. Cherian, M.D.](#)
- [Carlos A. Jamis-Dow, M.D.](#)
- [Rickhesvar P. M. Mahraj, M.D.](#)

Interventional Pulmonology

- [Christopher R. Gilbert, D.O.](#)
- [Jennifer W. Toth, M.D.](#)

Nursing

- Connie Blauch, L.P.N.
- [Linda Farling, C.R.N.P.](#)
- Linda Knorr, R.N.
- Mary Ellen May, R.N.

Our collaborative team is at the forefront of lung cancer treatment delivering the most effective and advanced treatment options to help improve survival and quality of life for patients including:

- minimally invasive thoracic surgery, including video-assisted thoracoscopic surgery (VATS) and robotic surgery
- advanced interventional pulmonology for diagnosis, staging, and treatment such as endobronchial ultrasound (EBUS), navigational bronchoscopy, airway stenting, endobronchial tumor ablation, and tunneled intrapleural catheters
- innovative radiotherapy/stereotactic radiosurgery
- chemotherapy, targeted therapy/personalized treatment approaches

Research and clinical trials have helped to advance treatment. Chandra P. Belani, M.D., Miriam Beckner Distinguished Professor of Medicine, Penn State College of Medicine, Deputy Director of the Cancer Institute and Associate Director of Clinical Research directs the clinical investigations across all programs. His role as a lung cancer researcher and translational investigator allows him and his team to be active in developing personalized therapies and combined modality approaches utilizing translational novel targeted agents for lung cancer and thoracic malignancies. The current focus is on determining the frequency of oncogenic mutations/gene rearrangements in tumors from patients with lung cancer with utilization of next-generation sequencing and correlation with clinical outcomes. There is emphasis on development of biomarkers for both early detection of lung cancer and progression. The ultimate goal is to develop personalized therapies with better understanding of the biology of lung cancer.

To refer a patient, please call 717-531-6585, option 1.

Our Partners - Penn State Hershey Cancer Institute in State College

Setting cancer care and research as a priority for Penn State Hershey has resulted in the rapid growth of its Cancer Institute, which expanded its practice to State College in August 2010. The State College practice, part of the University Park Regional Campus of Penn State College of Medicine, allows the latest treatment protocols to be delivered to Centre County patients without traveling away from home. While the Cancer Institute in State College has full access to the resources in Hershey, the team is pioneering new programs, as well, including utilizing the first FDA-approved immunotherapy for treating cancer called Provenge. The team is unique to the region in offering intraperitoneal administration of chemotherapy. This is done through a surgically implanted catheter that allows passage of fluids and chemotherapy into the abdominal cavity of women treated for ovarian cancer. Expanding clinical research trials will provide patients new alternatives for treatment.



Looking forward, the Cancer Institute and Mount Nittany Health will work together to raise the level of services and quality cancer care delivery available in central Pennsylvania.



"I have enjoyed working with Mount Nittany Medical Center and physicians in State College for more than a decade," said Witold Rybka, M.D., interim director, Penn State Hershey Cancer Institute in State College. "I am really excited to see this partnership blossom not only into excellent clinical capabilities, but also to open the door for the best of cancer research, harnessing the many talents of the Penn State community."

The Lance and Ellen Shaner Cancer Pavilion Now Open

Patients receiving cancer care in State College are now being treated in the new Lance and Ellen Shaner Cancer Pavilion located on the campus of Mount Nittany Medical Center. Once inside, the goal of the new facility is to help lighten the burden for people and their families facing a diagnosis of cancer. "The Shaner Cancer Pavilion was created out of Mount Nittany Health's commitment to enhance the environment of

care and gather as many needed services under one roof as possible, to minimize the impact of patient travel and the coordination issues that often accompany having doctor's visits in many different offices," said Aileen S. Galley, ACSW, LSW, administrative director, cancer program, Mount Nittany Medical Center.

[Click here to learn more about cancer services and our team in State College.](#)

Community Outreach

Reducing Cancer in Our Community: A free public forum

Penn State Hershey Cancer Institute in partnership with the American Cancer Society, Pennsylvania Division, South Central Region, will host the ninth annual public forum Reducing Cancer in Our Community on Saturday, March 9, in the University Conference Center. The event will begin at 9:00 a.m. (8:30 a.m. for registration and continental breakfast) and cover a range of timely topics in cancer, including breast and prostate cancers, how behavioral choices may affect whether a person gets cancer, and success stories in cancer therapy. Reducing Cancer in our Community is free, and anyone with an interest in health-related issues is invited to attend, including community leaders, patients and families, patient advocate groups, teachers, and community organizations. Lunch is provided. For a complete agenda and to register, visit PennStateHershey.org/reducingcancer, or call 717-531-6483.

Education and Research

Faculty Brief

Adam Glick, Ph.D., a member of the Mechanisms of Carcinogenesis and Chemoprevention Program of Penn State Hershey Cancer Institute and Associate Professor, Department of Veterinary and Biomedical Sciences, College of Agriculture Science, University Park, recently reported (Mohammed et al, Journal of Investigative Dermatology, 133:135-43, 2013 IF 6.314) the use of a novel mouse model to demonstrate that elevated transforming growth factor- β 1 (TGF β 1) in mouse skin causes rapid activation and migration of specific skin dendritic cell subsets to the lymph node and augmented skin inflammatory responses. These results are novel as TGF β 1 is generally thought of as an immunosuppressive cytokine for dendritic cells, and have important implications for understanding the role of elevated TGF β 1 in psoriasis and possibly as a proinflammatory cytokine in cancer development. This publication was the subject of a commentary published in the same journal.

Research Affairs Corner

Research Affairs is gearing up for a new year and the beginning of the NIH grant cycles. February 16 is the deadline for new R03s and R21s. Any researcher that is in the Cancer Institute and has a primary appointment through the Department of Medicine can contact Nikki Young, proposal specialist, for assistance with grants. She can be reached at nyoung@hmc.psu.edu or 717-531-0003, x285590. Please contact Nikki as soon as you know you are going to be submitting a grant. She can help you with timelines and the grant application.

Here are some other reminders and announcements:

- Please remember ORA guidelines state that the first review (Draft) of a grant should go to ORA for at least seven business days prior to the sponsor deadline. The final review should be done three business days prior to sponsor deadline. We recommend applications be submitted two days in advance of the deadline in order to have an error correction window.
- The systems we are using for budgets and many grant applications (SIMS and CAYUSE) work together nicely and make grant preparation easier. Establishing a budget should be one of the first steps in the process of getting a grant ready for submission. This allows the proposal specialist to get to work on the application sooner.

- Reminder – a reduction in effort equal to or greater than 25 percent, even in a No Cost Extension, requires NIH Grants Management Officer's prior approval. You will need to write a letter explaining the reduction in effort. This will be reviewed and submitted by ORA.
- There are new federal regulations in regarding Financial Conflict of Interest (FCOI) as it pertains to a subaward. If you are doing a grant that includes a subaward, make sure you let Nikki Young know as soon as possible to ensure that all appropriate paperwork is obtained from the subawardee.
- When using ClinicalTrials.gov, Penn State Hershey has a separate organizational account for trials conducted at this campus under the direction of a PI at HMC/COM. You should be using "MSHersheyMC". Using the incorrect account will lead to delays in update or registering records.
- The eSnap progress report is being replaced with a new format called the "Research Performance Progress Report" (RPPR). This format will become mandatory in the near future. Currently, you may still choose to do a progress report in eSnap format OR choose to do the RPPR. We do have resources available to step you through how to do the RPPR.

For more information about these announcements or reminders, please contact Nikki Young at nyoung@hmc.psu.edu or 717-531-0003, x285590. We look forward to assisting you with your grants!

Faculty Grant Support (December 2012 – February 2013)

Primary Investigator	Research	Sponsor
Roger Anderson, PhD	Pharmacotherapy Evaluation Tools for Improving Breast Cancer Outcomes	University of Michigan
Craig Cameron, PhD	Human Mitochondrial RNA Polymerase with BioCryst BioCryst	Pharmaceuticals, Inc.
Craig Cameron, PhD	Human Mitochondrial RNA Polymerase with BMS	Bristol-Myers Squibb
Ping Du, MD, Ph	Abnormal Anal Cytology in Rural HIV-Infected Women	Barsumian Trust
Wafik El-Deiry, MD, PhD	Institutional Research GAbnormal Anal Cytology in Rural HIV-Infected Womenrant	American Cancer Society
John Flanagan, PhD	Structural Studies of Tight Junction Proteins	National Institutes of Health
Richard Frisque, PhD	Viral and Host Genetic Factors Influence JC Virus Infection, Pathogenicity and Response PML	Consortium, LLC
Matthew Kaag, MD	Enhancing Patient Resilience During Multimodal Therapy for Bladder Cancer	Barsumian Trust
John Kuttesch, MD	Children's Oncology Group	Children's Hospital of Philadelphia
Sang Lee, PhD	Development of Novel Thiobarbituric Acid Analogs for Lung Cancers	Elsa U. Pardee Foundation
Eugene Lengerich, MS, VMD	PA Community Health Worker Network	PA Dept. of Health

Andrea Mastro, PhD	Cell-specific Transcription in Cancer Microenvironment in vitro and in vivo	University of Pittsburgh
Gavin Robertson, PhD	Establishing Bioactive Serum and Toxicity Levels for Nanolipolee007	PenForGel
Raghu Sinha, PhD	PSU Animal Model Experiment Contract	Orentreich Foundation for the Advancement of Science
Robin Wilson, PhD	Genetic, Dietary and Environmental Influences of Vitamin D Metabolism	American Institute for Cancer Research
Siyang Zheng, PhD	CTC Enrichment and Analysis Toward Personalized Cancer Treatment	American Cancer Society

Faculty Publications (December 2012 – February 2013)

1. Arnold, J. J., Sharma, S. D., Feng, J. Y., Ray, A. S., Smidansky, E. D., Kireeva, M. L., Cho, A., Perry, J., Vela, J. E., Park, Y., Xu, Y., Tian, Y., Babusis, D., Barauskus, O., Peterson, B.R., Gnatt, A., Kashlev, M., Zhong, W., Cameron, C.E. (2012). Sensitivity of Mitochondrial Transcription and Resistance of RNA Polymerase II Dependent Nuclear Transcription to Antiviral Ribonucleosides. *PLoS Pathog* 8, e1003030.
2. Beyer, A. R., Bann, D. V., Rice, B., Pultz, I. S., Kane, M., Goff, S. P., Golovkina, T. V., and Parent, L. J. (2013). Nucleolar Trafficking of the Mouse Mammary Tumor Virus Gag Protein Induced by Interaction with Ribosomal Protein L9. *J Virol*. 87, 1069-1082.
3. Ealy, J. B., Sudol, M., Krzeminski, J., Amin, S., and Katzman, M. (2012). Alternative nucleophilic substrates for the endonuclease activities of human immunodeficiency virus type 1 integrase. *Virology* 433, 149-156.
4. Forastiere, A. A., Zhang, Q., Weber, R. S., Maor, M. H., Goepfert, H., Pajak, T. F., Morrison, W., Glisson, B., Trotti, A., Ridge, J. A., Thorstad, W., Wagner, H. et al. (2012). Long-Term Results of RTOG 91-11: A Comparison of Three Nonsurgical Treatment Strategies to Preserve the Larynx in Patients With Locally Advanced Larynx Cancer. *J Clin Oncol*. Epub ahead of print
5. Han, J., Chadha, P., Starkey, J. L., and Wills, J. W. (2012). Function of glycoprotein E of herpes simplex virus requires coordinated assembly of three tegument proteins on its cytoplasmic tail. *Proc Natl Acad Sci U S A* 109, 19798-19803.
6. McLaughlin, J. M., Anderson, R. T., Ferketich, A. K., Seiber, E. E., Balkrishnan, R., and Paskett, E. D. (2012). Effect on Survival of Longer Intervals Between Confirmed Diagnosis and Treatment Initiation Among Low-Income Women With Breast Cancer. *J Clin Oncol* 30, 4493-4500.
7. Muppidi, A., Doi, K., Edwardraja, S., Drake, E. J., Gulick, A. M., Wang, H. G., and Lin, Q. (2012). Rational design of proteolytically stable, cell-permeable peptide-based selective Mcl-1 inhibitors. *J Am Chem Soc* 134, 14734-14737.
8. Singh, S., Sharma, A., and Robertson, G. P. (2012). Realizing the clinical potential of cancer nanotechnology by minimizing toxicologic and targeted delivery concerns. *Cancer Res* 72, 5663-5668.
9. Tsetschladze, Z. R., Canfield, V. A., Ang, K. C., Wentzel, S. M., Reid, K. P., Berg, A. S., Johnson, S. L., Kawakami, K., and Cheng, K. C. (2012). Functional assessment of human coding mutations affecting skin pigmentation using zebrafish. *PLoS One* 7, e47398.
10. Turrisi, R., Gunn, H., Hultgren, B., Warner, N., and Mallett, K. A. (2012). The style project: feasibility of collaborating with salons for prevention and early detection of skin cancer. *Arch Dermatol* 148, 1206-1207.
11. Watson, A. M., Mylin, L. M., Thompson, M. M., and Schell, T. D. (2012). Modification of a Tumor Antigen Determinant To Improve Peptide/MHC Stability Is Associated with Increased Immunogenicity and Cross-Priming a Larger Fraction of CD8+ T Cells. *J Immunol* 189, 5549-5560.

12. Weaver, M. T., Geier, C. F., Levin, M. E., Caggiula, A. R., Sved, A. F., and Donny, E. C. (2012). Adolescent exposure to nicotine results in reinforcement enhancement but does not affect adult responding in rats. *Drug Alcohol Depend* 125, 307-312
13. Wilson, S. J., Creswell, K. G., Sayette, M. A., and Fiez, J. A. (2013). Ambivalence about smoking and cue-elicited neural activity in quitting-motivated smokers faced with an opportunity to smoke. *Addict Behav* 38, 1541-1549
14. Xu, T., Beelman, R. B., and Lambert, J. D. (2012). The Cancer Preventive Effects of Edible Mushrooms. *Anticancer Agents Med Chem* 12, 1255-1263.

News and Notes

Twenty-five years of dedicated service

Mary Lander, R.N., joined Penn State Hershey as a staff nurse in radiation therapy in January 1988 and transferred to the Cancer Institute's Clinical Trials Office in January 2003. She has been a research nurse at the Cancer Institute CTO since the formative years of the office. Lander's emphasis has been with bone marrow transplantation and clinical trials for patients with hematologic malignancies. She has always established herself as a trusted member of the treatment team for her patients and their family members as they consider clinical trials participation at the Cancer Institute.

"Mary is amongst the most dedicated clinical research nurses that I have known in my thirty years in academic medicine," stated Thomas Loughran, M.D., director, Cancer Institute.

"A remarkably capable research nurse who always kept the patients best overall care in mind. We will miss her talents and good spirit," noted W. Christopher Ehmann, M.D.

Mary retired on January 25, 2013. She will be missed by the CTO team and the entire clinical and administrative teams at the Cancer Institute, as well as her patients.

Penn State Lady Lions visit Penn State Hershey Cancer Institute



Caption: The Penn State Lady Lions visit with patient Tamara Jaroszewski in the Cancer Institute.

The Penn State Lady Lions basketball team made its first-ever trip to Penn State Hershey Medical Center, specifically to [Penn State Hershey Cancer Institute](#). Members of the media tagged along as team members toured the facility and interacted with patients and staff. There's a strong connection between the team and Penn State Hershey as the Lady Lions donate a portion of the proceeds from their WBCA Pink Zone game each year to breast cancer research efforts at the Cancer Institute.

Coach Coquese Washington and members of her team toured a research lab in the Cancer Institute, where they were able to see and hear how the Pink Zone money directly supports breast cancer research efforts. Then it was off to the infusion therapy clinic where they met with patients, physicians, nurses and others. The team also visited the Medical Center's inpatient cancer unit.

The annual WBCA Pink Zone at Penn State helps the Cancer Institute fight cancer on every front: through education and prevention, early detection and diagnosis, effective treatment, and survivorship programs. The Lady Lions Basketball Breast Cancer Research Endowment was created through Pink Zone at Penn State funds. It supports new ideas for young researchers and/or scientists working on breast cancer research at the Cancer Institute. Specifically, the endowment allows researchers and scientists to complete the pilot research needed to test their theories in the lab and, if successful, move forward to apply for highly competitive, federal monies that are often only obtainable after successful pilot research has been done.

[View photos from the Lady Lions' visit to Penn State Hershey Cancer Institute](#)

New Support Group Offered to Individuals Facing Hereditary Breast and Ovarian Cancer

The Harrisburg/Lancaster network of Facing Our Risk of Cancer Empowered or FORCE is hosting its first support group on Thursday, February 21 from 6:00-8:00 p.m. at Penn State Hershey Breast Center, 30 Hope Drive – Entrance A, Suite 1800, Hershey. The group is designed for anyone with a family history of breast or ovarian cancer, has tested positive for a BRCA mutation, or considering genetic testing. Patients can learn from others who are navigating the hereditary cancer path. Genetic counselor/medical geneticist Maria Baker and genetic counselor Rio Stenner will be attending. Light refreshments will be served.

FORCE exists to improve the lives of individuals and families facing hereditary breast and ovarian cancer. Visit [FORCE and the Harrisburg/Lancaster network and to learn more and register for this event](#).

Look Good... Feel Better

Look Good...Feel Better helps female cancer patients improve their appearance and self-image by teaching them hands-on beauty techniques to manage the appearance of side effects of chemotherapy and radiation treatments. This program is available throughout the year at Penn State Hershey. Dates, locations and times vary. Registration is required. [View the full schedule here](#). To register, call 1-800-227-2345.

7th Annual WBCA Pink Zone at Penn State raises funds for Cancer Institute

On Sunday, February 24, 2013 at 1 p.m., the Penn State Lady Lions basketball team will take on Michigan for the team's seventh annual WBCA Pink Zone. For the past six years, WBCA Pink Zone at Penn State has raised \$565,317.73 for breast cancer awareness, research, and patient support.

Breast cancer survivors are invited to attend the game on February 24 at no cost (four total tickets provided free of charge), participate in a half-time survivor program and post-game survivor reception. Survivors will also receive free transportation from Hershey to the Bryce Jordan Center compliments of Fullington Trailways. [Click here to register](#).



Pink Zone at Penn State t-shirt sales benefit breast cancer research



Faculty, staff, and friends can support Pink Zone 2013 by purchasing an official Pink Zone 2013 t-shirt available at the Breast Center and Cancer Institute infusion therapy suite beginning January 2. Adult shirts are \$15 each with \$7 from each shirt sale going directly toward Pink Zone at Penn State. Click here (www.GoPSUsports.com/pinkzone) to learn more about Pink Zone at Penn State. You can also text PSU PINK to 50555 to donate \$10 to Pink Zone at Penn State.

500 University Drive
M.C. CH72
Hershey, PA 17033
Penn_State_Hershey_Cancer_Institute@hmc.psu.edu

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