

DIALOGUE

Finding the Root of a Cure for Leukemia



A daisy-like plant known as Feverfew, found in gardens across North America, is the source of an agent that kills human leukemia stem cells like no other single therapy, scientists at the James P. Wilmot Cancer Center have discovered.

It will take months before a useable, pharmaceutical compound can be made from parthenolide, the main component in Feverfew. However, Wilmot stem cell expert Craig T. Jordan, Ph.D., and Monica L. Guzman, Ph.D., who authored a paper published recently in *Blood*, are collaborating with University of Kentucky chemists, who have identified a water-soluble molecule that has the same properties as parthenolide.

The National Cancer Institute has accepted this work into its rapid access program, which aims to move experimental drugs from the laboratory to human clinical

Continued on page 2

JAMES P.
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Translational Research Team Explores Therapies for Leukemia

Craig Jordan, Ph.D., center, joined the Wilmot Cancer Center two years ago as director of translational research for hematologic malignancies. His growing team includes from left, Megan Donaghue, Cheryl Corbett, Peter LaCelle Ph.D., Jordan, Pin-Yi Wang, Tim Bushnell Ph.D., Monica Guzman Ph.D., Xiaojie Li, and Tiffany Telarico. Not pictured are Sarah Neering, M.S., Anthony Bibawy, M.D., and Elie Dib, M.D.



Continued from Cover

trials as quickly as possible. And the team recently received a \$600,000 grant from The Leukemia & Lymphoma Society to support the work.

“This research is a very important step in setting the stage for future development of a new therapy for leukemia,” says Jordan. “We have proof that we can kill leukemia stem cells with this type of agent, and that is good news.”

Parthenolide is the first single agent known to act on myeloid leukemia at the stem-cell level, which is significant because current cancer treatments do not strike deep enough to kill mutant cells where the malignancy is born.

In other words, even the most progressive leukemia treatment, a relatively new drug called Gleevec, is effective only to a degree. It does not reach the stem cells, so “you’re pulling the weed without getting to the root,” Jordan says.

Feverfew has been used for centuries as an herbal remedy to reduce fevers and inflammation, to prevent migraine headaches, and to ease symptoms from arthritis. A person with leukemia, however, would not be able to take enough of the herbal remedy to halt progression of the disease.

Researchers are working to develop an easily digestible drug using a derivative of parthenolide that would be effective for people with leukemia. The process will take about a year before clinical trials could begin.

“At this time, people should not take large amounts of Feverfew to treat leukemia or other cancers,” says Jordan. “We believe it is not possible to ingest enough Feverfew to be of benefit for cancer therapy. It is likely that consuming large quantities of Feverfew could be a health hazard.”

Investigating stem cells that give rise to cancer is an urgent new initiative, as is identifying stem-cell treatments that might end the disease process. Jordan and Guzman are among only a handful of stem cell biologists nationwide specifically studying cancer stem cells. In recent years, scientists have identified cancer stem cells in blood cancers and in brain and breast tumors – although the idea that cancer stem cells exist has been around for at least 40 years.

In the current study, the UR group began investigating Feverfew after other scientists showed that it prevented some skin cancers in animal models. Intrigued by the plant’s anti-tumor activities, the UR team analyzed how a concentrated form of parthenolide would act on the most primitive types of acute myelogenous leukemia cells, chronic myelogenous leukemia cells and normal cells.

In laboratory experiments, they also compared how human leukemia stem cells reacted to parthenolide, versus a common chemotherapy drug called cytarabine. The result: parthenolide selectively killed the leukemia cells while sparing the normal cells better than cytarabine.

Scientists believe parthenolide might also make cancer more sensitive to other anti-tumor agents. And, the Wilmot team was able to demonstrate the molecular pathways that allow parthenolide to cause apoptosis, or cancer cell death, increasing the chances of developing a new therapy.

Jordan is director of the Translational Research for Hematologic Malignancies program at the Wilmot Cancer Center and associate professor of Medicine and Biomedical Genetics. Guzman is senior instructor of hematology/ oncology.

Other co-investigators include: Randall Rossi, associate scientist; Lilliana Karnischky, laboratory technician; Xiaojie Li, technical associate; Derick Peterson, Ph.D., assistant professor of biostatistics, and Dianna Howard, M.D., at the University of Kentucky Medical Center. Their research is sponsored by grants from the Leukemia and Lymphoma Society, American Cancer Society and National Cancer Institute.

Wilmot Study: Obese Breast Cancer Patients Often Get Reduced Doses of Chemo



“The issue of chemotherapy dosing is increasingly important as more Americans struggle with obesity.”

— Jennifer Griggs, M.D., M.P.H.



Overweight breast cancer patients often do not get enough chemotherapy — and that might help explain why they tend to fare worse than thinner women, according to a study by oncologists at the James P. Wilmot Cancer Center.

Doctors typically use weight, height and body-surface measurements to determine the proper doses of the powerful cancer-fighting drugs.

But many doctors avoid that approach with overweight breast cancer patients because they worry about the toxic side effects of very large doses, says Jennifer Griggs, M.D., M.P.H., the study's lead author and medical director of the Comprehensive Breast Cancer Program. The study focused on 9,672 women treated across the country for breast cancer.

The issue of chemotherapy dosing is increasingly important as more Americans struggle with obesity, according to Griggs. The study was published recently in the Archives of Internal Medicine.

Current standards call for doctors to figure chemotherapy doses based on body surface area (BSA), calculated by height and weight and expressed in square meters. But due to concerns that this formula might provide too much medication to large women and cause toxic side effects, some doctors typically make adjustments in three ways:

Either they reduce the dose by some estimated amount (15 percent, for example), or they calculate the dose on the patient's ideal body weight rather than the actual body weight, or they cap the dose at 2.0 meters. Practices vary among physicians and geographic areas.

Some doctors also make adjustments to the treatment schedule by reducing the dose in the first cycle of four planned rounds of chemotherapy, and then adding one or two additional cycles. While this strategy may boost the total amount of medication a woman receives, it does not achieve the intensity of four full doses, the study says.

Adjuvant chemotherapy is given to breast cancer patients whose disease has

not spread but who are at risk for a recurrence. Large studies suggest that the benefits of chemotherapy are diminished when patients do not receive the full dose. Griggs and colleagues researched the treatment given for Stage I, II, or III breast cancer patients who received chemotherapy between 1990 and 2001 at 901 oncology practices across the country.

Obesity is both a known risk factor and a negative prognostic factor: Women who are 20 percent to 25 percent over their ideal body weight tend to suffer recurrences more often than lean women. Most patients in the study were otherwise healthy, but 62 percent were overweight, obese or severely obese.

Among the findings: First-cycle dose reductions of 10 percent or more were administered to 9 percent of the healthy-weight women, 11 percent of the overweight, 20 percent of the obese, and 37 percent of the severely obese women. Furthermore, although doctors reduce doses out of concern for a patient's safety and to decrease possible side effects, such as fever and low white blood counts, the study found that when overweight or obese women are given full-weight doses, they are no more likely than thinner women to be admitted to the hospital for serious side effects. In fact, severely obese women were less likely to require hospitalization to treat chemotherapy side effects.

“Although many patients received reduced doses, most did not. It is clear there is some uncertainty among doctors on how best to dose chemotherapy in heavy patients,” Griggs says. “This study adds to other research by demonstrating that dosing chemotherapy using actual body weight is safe and may help address some of the uncertainty. We have here an opportunity to improve the quality of all aspects of cancer care.”

The James P. Wilmot Cancer Center funded the study. Amgen Inc., a California manufacturer of drugs that boost white blood cells, funded the initial data collection.

Wilmot Receives \$21 Million Terrorism Research Grant Dirty Bomb Research Brings Largest NIH Grant in URMC History



Paul Okunieff, M.D.

The University of Rochester Medical Center and James P. Wilmot Cancer Center will participate in a new nationwide network of seven Centers for Medical Countermeasures Against Radiation to improve the country's response to a radiological attack, such as with a dirty bomb. The National Institutes of Health/National Institute of Allergy and Infectious Disease awarded the university \$21 million, over five years.

University officials believe this is the largest grant the NIH has awarded to the University of Rochester.

"We are proud to be a part of the important effort of helping our nation better prepare for the devastating warfare techniques that have evolved and threaten our country and the world each day," says C. McCollister Evarts, M.D., CEO of the University of Rochester Medical Center.

Rochester radiation oncology researchers have established the Center for Biophysical Assessment and Risk Management Following Irradiation which will focus on finding ways to measure levels of radiation exposure in humans, treat the toxic effects of radiation, and, importantly, identify a means of predicting the long-term health risks posed by low levels of radioactive particles.

"There's an unfortunate absence of anything we can give people if there is a radiological attack," says Paul Okunieff, M.D., chairman of the Department of Radiation Oncology and principal investigator.

"We have vaccines being tested and antibiotics available for chemical or biological attacks," Okunieff says. "Now, with this funding, we are able to fast-track the science and develop concrete plans to monitor and treat people in the event of a radiological attack." The project allows the University of Rochester to expand on expertise it has developed over decades: how to prevent healthy tissue from being harmed during radiation therapy for cancer, and how radiation and other toxins affect the body over time.

The UR and Wilmot Cancer Center also has a long-established expertise in the study of inhaled toxins on the lungs and other organs. In fact, in the aftermath of the Sept. 11, 2001, terrorist attacks, the university was enlisted to analyze the ultra fine dust particles collected from around the World Trade Center, and to assess their effect on the lungs of rescue workers and Manhattan residents.

Experience in those scientific areas fit into the U.S. Department of Homeland Security's new initiative, says Jacob N. "Jack" Finkelstein, Ph.D., professor of Environmental Medicine, Radiation Oncology and Pediatrics.

During the next five years, the University of Rochester will collaborate with Dartmouth Medical School, the University Health Network in Toronto, Canada, and other laboratories, on five projects. These projects are designed to develop fast and accurate tools to identify radiation exposure in large numbers of people.



The team working to find ways to identify and respond to radiation exposure from left are: Amy Huser, Eric Hernady, Jacqueline Williams, Steven Dertinger (Litron Laboratories), Peter Keng, Bruce Fenton, Paul Okunieff, Scott Paoni, Sally Thurston, Olivier Hyrien, and Derick Peterson.

- **Project 1:** Using blood and skin tests to measure the body's inflammation response to toxic radiation exposure. Scientists also hope to identify and evaluate at least 10 different drugs or natural remedies that might protect the body from harmful radiation.
- **Project 2:** Understanding how inhaled radioactive dust or other ultra fine particles harm lung tissue and cells, especially in the lower doses most likely to occur during a radiological attack. Also, scientists will identify agents that could mitigate the organ damage.
- **Project 3:** Calculating a radiation dose by monitoring the teeth. Scientists will use a field instrument, developed at Dartmouth, to test its ability to screen victims' radiation exposure within minutes. This project's goal is to meet a critical need: to be able to determine very quickly after an incident whether people have received a dose of radiation that could cause immediate, serious health problems.
- **Project 4:** Using a blood test that is currently used to detect if drugs are geno-toxic to humans, to determine if the same test could evaluate levels of radiation exposure and predict future cancer risk.
- **Project 5:** Developing a skin test that could measure DNA damage in the cells of the superficial layers of skin following radiation exposure. Just as in Project 4, this research would also attempt to predict the risk of a person developing cancerous tumors in the future.

In addition to Okunieff and Finkelstein, the research group includes Jacqueline P. Williams, Ph.D., associate research professor of Radiation Oncology; Yuhchayou Chen, Ph.D., M.D., associate professor of Radiation Oncology; and Sally W. Thurston, Ph.D., assistant professor of Biostatistics.

"We are proud to be a part of the important effort of helping our nation better prepare for the devastating warfare techniques that have evolved and threaten our country and the world each day."

C. McCollister Evarts, M.D., CEO of the University of Rochester Medical Center.

Wilmot Research Programs Growing



Dear Friends and Colleagues,

The research engine at the Wilmot Cancer Center is gaining momentum as a result of the aggressive recruitment efforts and we're seeing the benefits in additional research funding over the last several months.

In the past four years, we've expanded our clinical and scientific faculty to broaden our translational and clinical research programs and our team recently received nearly \$25 million in funding for research into new therapies.

Craig Jordan, Ph.D., who joined us from University of Kentucky two years ago, was awarded \$600,000 to study parthenolide – a component in the common flower, Feverfew – to destroy leukemia stem cells, and early results are promising. Scientists and clinicians across the country are interested in his progress and naturally The Leukemia & Lymphoma Society is supporting it.

The society also awarded \$600,000 to Steven Bernstein, M.D., a recruit from Roswell Park Cancer Institute three years ago, and microbiologist Rick Phipps, Ph.D., because they're studying new agents that target lymphoma cells differently than current therapies.

Joe Roscoe, Ph.D., from our Community Clinical Oncology Program research base, received \$500,000 from the National Cancer Institute to assess the role of patients' expectations on the development and control of nausea during chemotherapy for breast cancer. This can help oncologists better understand how to treat patients as they experience this awful side-effect of treatment.

Jane Liesveld, M.D., clinical director of our blood and marrow transplant program, received \$550,000 from the NCI to study treatments for myelodysplastic syndrome, a condition that often leads to leukemia in older adults. She is working with Jordan and John Bennett, M.D., an international expert on MDS, to study how Velcade, a proteasome inhibitor, combats the disease.

And last, but certainly not least, we received \$21 million from the National Institutes of Health to join a national network of Centers for Medical Countermeasures Against Radiation to improve our country's response to a dirty bomb terrorist attack. Paul Okunieff, M.D., and his radiation oncology researchers will study ways to detect radiation exposure and minimize damage.

This terrorism research is expected to not only improve our nation's security, but also help scientists better understand how radiation – a common treatment for some cancers – effects tissue and cells and may improve our ability to target tumors.

This is just the beginning of Wilmot's growth as a leader in cancer research. We expect to see great results.

Sincerely,

A handwritten signature in black ink that reads "Richard I. Fisher, M.D." in a cursive style.

Richard I. Fisher, M.D.
Director, James P. Wilmot Cancer Center
Director, Cancer Services for Strong Health

Campaign Update Community Supports Wilmot Expansion Plans



Dear Friends,

Supporters of the Wilmot Cancer Center are moving quickly to raise the \$42.5 million needed for the comprehensive campaign to advance cancer care and research, and to construct a new facility.

Since we launched this initiative – the largest in the cancer center’s history – back in early May, we have seen incredible community support for the plan to improve cancer care for people in Rochester, Upstate New York and beyond.

So far, we’ve raised \$17.5 million through the generosity of our strong supporters. We expect to reach the mid-way point in a few months, allowing us to break ground in early 2006.

Leaders at the Wilmot Cancer Center believe this expansion will improve accessibility for patients. We will combine our services into one location – at the corner of Crittenden Boulevard and East Drive – adjacent to the hospital and parking garage. It will be more convenient for our patients and visitors.

The new building will also house translational research labs, which are designed to bring scientists together with doctors to hasten development of new therapies and someday cures.

Our community will benefit from obviously having better cancer care in a more comfortable setting, but we’ll also see an economic boost as a result of this project. The Wilmot Cancer Center will continue to import millions of dollars from outside this community for research and development. And, the resulting expansion of clinical, scientific and support staff is expected to double the cancer center’s annual impact on the regional payroll to \$71 million.

Experts anticipate we will see an increase in research funding and the number of spin-off biotechnology businesses. And our hospitality industry will benefit because we’re already seeing an increase in the number of people from outside the Rochester area traveling to the Wilmot Cancer Center for our expertise.

There are so many reasons to support this comprehensive campaign and we hope to engage everyone in the Rochester area and beyond to support it. Gifts of all sizes will help us reach our \$42.5 million campaign goal.

As co-chair of this campaign, I ask you to please join me and help create a state-of-the-art cancer center to offer the best cancer care and innovative research here in Rochester.

Sincerely,

James Ryan Jr.
Chair, James P. Wilmot Cancer Center
Co-Chair, Wilmot Cancer Center Comprehensive Campaign

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Four Business Leaders Join Wilmot Board



Michael Buckley



Tim Williams



André Langston



David Vigren

The Wilmot Cancer Center Board has added four new members to support the fund-raising efforts. The Cancer Center is in the midst of a \$42.5 million comprehensive campaign to expand cancer care and research and to construct a new facility.

Rochester businessmen Michael Buckley, André Langston, David Vigren and Timothy Williams will serve three-year terms with the Cancer Center.

"I have a passion for beating this disease," said Vigren, retired CEO for ESL Federal Credit Union.

He survived cancer and supported his wife through cancer treatment. He is a member of the board of directors for the Memorial Art Gallery, Bishop Kearney High School and Nazareth College.

Buckley is a partner at Harter, Secrest & Emery law firm, specializing in estate planning and tax matters. He is involved with several community organizations including the Highland Hospital Board of Directors and Foundation, Rochester Area Community Foundation, and Strong Partners Health System.

Langston is president of WDKX-FM and involved with Rochester Razor Sharks, Stop the Violence Basketball Tournament and Green Acres Community Center. Cancer has affected Langston's family and he looks forward to involving the Wilmot Cancer Center with radio station programs to support awareness building and community education efforts.

Williams has been involved with the Cancer Center's Discovery Ball serving on the corporate underwriting committee for the last several years. He is president of PICS Telecom Corp., and an avid skier. He serves on the Hunt Hollow Ski Club Board and as its race team director.

Red Wings Support Cancer Center



The Rochester Red Wings and fans donated \$6,690 to support the Wilmot Cancer Center's comprehensive campaign. The funds were raised during silent auctions at each home game throughout the season. The Red Wings organized the fund-raiser in honor of manager Phil Roof's wife, Marie, who is battling cancer. The money will be used to purchase new infusion chairs when the new cancer center is constructed.

Wilmot Opens Campaign Headquarters



The Wilmot Cancer Center Development Office has relocated to at 90 Brandon Woods, near Clinton Woods in Brighton. The office space and furnishings have been generously donated by area businesses and supporters. Team members are from left: Jeanie Bayer, Amy Gallaher, Mary Ann Dever, Kim Ziegler, Tim May and Marianne Leahy.

The James P. Wilmot Cancer Center recently celebrated the opening of its new Comprehensive Campaign Office to support the effort to raise \$42.5 million to expand cancer care and research.

The office is located at 90 Brandon Woods, off South Clinton Avenue. The offices and furnishings were generously donated by Robert H. Hurlbut, Merkel Donohue, and Steelcase, Inc.

In addition, the following businesses supported the effort: Bergmann Associates, Brayton International, Connors Haas, Inc., Design Tex, Deskset Ltd., Details, Entre Computer Services, FM Resources, Gallaher Construction, Inc., Infiniti Integrated Security, Inc., JM Lynne, LeChase Construction, Lumicore, Metro, Milliken Carpet, Nicole Antoinette's, Pierrepont Visual Graphics, Inc., Polyvision, Presentation Source, RD Weis Companies, Ryco Management, Structured Technologies, Inc., Turnstone, U of R Information Systems Division, U of R Real Estate Services, UR Telecommunications, Up and Running Service Center, Vecta, and Xerographic Solutions, Inc.

"The generosity of so many businesses and individuals will help the Wilmot Cancer Center secure the funds needed to expand local cancer care and research programs" says Richard I. Fisher, M.D., director of the Wilmot Cancer Center.

The new space allows the Development team to display the new building model and plans, meet with prospective donors and hold campaign meetings in a beautifully decorated environment.

News & Notes

Jean Joseph, M.D., urologic surgeon, published a study comparing outcomes from laparoscopic prostatectomy and robot-assisted prostatectomy in *BJU International's* July edition. The article was co-authored by **Ivelisse Vicente, R.N.**, **Erdal Erturk, M.D.**, **Ralph Madeb, M.D.**, and **Hiten Patel, M.D.**

Nicole Kuderer, M.D., hematology/oncology research fellow, received a Young Investigator Award from the Multinational Association for Supportive Care of Cancer in June. She presented studies on "A validated risk model for mortality in hospitalized adult cancer patients with febrile neutropenia" and "Prophylactic granulocyte colony-stimulating factor (gcsf) in cancer patients receiving chemotherapy: A Meta-Analysis."

Louis S. Constine, M.D., professor of Radiation Oncology and Pediatrics, is co-author of *Survivors of Childhood Cancer: Assessment and Management*, published earlier this year. He also presented "Cancer Survivorship: Long-term complications of treatment" at the annual meeting of the American Society of Clinical Oncology and published "Latent cardiac injury following the double-edged sword of chemotherapy and radiation" in the ASCO 2004 educational book.

Jane T. Hickok, M.D., M.P.H., research assistant professor of Radiation Oncology, led an oral presentation "Serotonin receptor antagonists are no better than prochlorperazine for control of delayed nausea caused by doxorubicin," at the American Society of Clinical Oncology annual meeting May 17.

Scientist **Craig Jordan, Ph.D.**, was awarded \$600,000 by The Leukemia & Lymphoma Society to advance the study of a plant derivative to combat leukemia. Jordan, associate professor of medicine in the Hematology-Oncology Unit, and his team of researchers discovered that parthenolide, a component in the common wildflower feverfew, destroys myeloid leukemia stem cells. Their translational research focuses on modifying parthenolide to create a water-soluble form of the molecule for clinical trials in the next 12-18 months. Jordan was also awarded a \$150,000 grant from the Department of Defense to study leukemic stem cells in lymphoid leukemia

The Leukemia & Lymphoma Society also awarded \$600,000 to hematologist **Steven Bernstein, M.D.**, to lead laboratory studies of promising new agents that attack diffuse large B cell lymphoma differently than current therapies. This research, which Bernstein is conducting with scientist **Rick Phipps, Ph.D.**, professor of Environmental Medicine, Microbiology & Immunology, Oncology and Pediatrics, focuses on diffuse large B cell lymphoma

Jane Liesveld, M.D., clinical director of the Wilmot blood and marrow transplant program, received \$554,000 from the National Cancer Institute to study treatment for myelodysplastic syndrome, a condition that often leads to leukemia in older adults. She will work with Jordan and **John Bennett, M.D.**, an international expert on MDS, to study the use of a proteasome inhibitor called Velcade, which is highly effective in treating multiple myeloma, in combating MDS.

Joseph Roscoe, Ph.D., research assistant professor, received \$502,000 in NCI funding to study the role of patients' expectations on the development and control of nausea during chemotherapy for breast cancer. His study will involve the use of acupressure wristbands and relaxation.

Gary Lyman, M.D., led a national panel of experts from the American Society of Clinical Oncology that issued guidelines for the use of sentinel node biopsies for people with early stage breast cancer. The guidelines were published in the *Journal of Clinical Oncology*.

Jennifer J. Griggs, M.D., M.P.H., medical director of the Comprehensive Breast Cancer Program, was honored with the Breast Cancer Coalition of Rochester's Advocate Spirit Award Oct. 1.

Kishan Pandya, M.D., professor of Medicine and Oncology, and Yuhchyan Chen, M.D., associate professor of Radiation Oncology, presented three studies at the World Lung Cancer Conference in Barcelona.

Wilmot Recruits Four Clinicians, Scientists to Advance Care

Four oncologists from the top cancer centers in the nation recently joined the James P. Wilmot Cancer Center, continuing the major recruitment program underway at Rochester's top cancer center.

"These are some of the best and brightest doctors in clinical care and cancer research," says Richard I. Fisher, M.D., director, James P. Wilmot Cancer Center and director of cancer services, Strong Health.

Fisher has been expanding the clinical and research faculty at the Wilmot Cancer Center to broaden key programs in lung, breast, colon and prostate cancers as well as leukemias and lymphomas. Over the past three years, he has recruited 15 additional scientists and oncologists.



Manish Kohli, M.D., was named associate professor of Urology and Medicine, coming from University of Arkansas for Medical Sciences and Central Arkansas Veterans

Healthcare System. He has joined the Wilmot Genitourinary Oncology Team, working closely with Deepak Sahasrabudhe, M.D.

A graduate of Maulana Azad Medical College, he completed his internship at Cook County Hospital and a fellowship in hematology/oncology at University of Arkansas for Medical Sciences in 1999. Kohli focuses his research on angiogenesis and coagulation, clinical aspects of proteomics research and in developing molecular target based therapeutic clinical trials in genitourinary malignancies. He is a member of the American Society of Clinical Oncology.

A graduate of Maulana Azad Medical College, he completed his internship at Cook County Hospital and a fellowship in hematology/oncology at University of Arkansas for Medical Sciences in 1999.



In Radiation Oncology, **Michael Milano, M.D., Ph.D.**, was recruited to support the head and neck and thoracic oncology clinics. He is also specializing in stereotactic radiosurgery,

working closely with Chair Paul Okunieff, M.D., internationally recognized leader in shaped-beam stereotactic radiosurgery.

Milano, assistant professor, is a graduate of the University of Notre Dame and University of Rochester School of Medicine and Dentistry, where he also earned his Ph.D. in biophysics. He was a visiting resident at Princess Margaret Hospital in Toronto and Royal Marsden Hospital in London. He completed his radiation oncology residency at University of Chicago.

He is a member of the American Society of Therapeutic Radiation Oncology and the American Society of Clinical Oncology.



Deborah Mulford, M.D., recently completed a fellowship in medical oncology at Memorial Sloan-Kettering Cancer Center and was named assistant professor of

Hematology/ Oncology at the Wilmot Cancer Center. She has joined the Blood and Marrow Transplant Program, specializing in leukemias and other hematologic malignancies.

A graduate of Union College, she earned a bachelor's degree in electrical engineering. She worked at Polaroid Corp., designing imaging systems before pursuing a medical career at University of Rochester School of Medicine and Dentistry. She completed a residency and internship in internal medicine at New York University Medical Center/ Bellevue Hospital Center before completing a fellowship at Memorial Sloan-Kettering.



Anthony Bibawy, M.D., was named instructor of Medicine and serves on the inpatient clinical service. A Wilmot Research Fellow,

Bibawy is a graduate of the University of Rochester School of Medicine and Dentistry, where he completed his residency and fellowship.

He is working with Craig Jordan, Ph.D., on research to destroy leukemia stem cells.

Artist's Patience, Creativity Brings Hope to Patients

Maureen Whitsell never considered herself artistic, but she enjoys craft projects if someone can take the time to teach her how.

Whitsell has undergone chemotherapy infusions for colon cancer and learned origami – the Japanese art of folding paper into shapes such as flowers or animals – at the James P. Wilmot Cancer Center.

Rochester artist Donna Jordan taught Whitsell how to properly fold the paper as part of a new art program at Wilmot's treatment center. People with cancer undergoing lengthy chemotherapy infusions can enjoy a "simple distraction that keeps their mind off their illness," she says. Whitsell agrees: "It's a lot of fun and it passes the time. Donna guides you through it and you realize that it's not that hard. I made a giraffe that my granddaughter just loves."

Jordan, who has a multi-media studio at Anderson Alley, began the program in March as a way to provide support to people during difficult times. She volunteers to teach patients the techniques for creating a variety of forms of art and crafts – sketching, collage, knitting, magnetic poetry and making clay beads.

"Tending to the spirit is an important part of a person's recovery," says Jordan. "At the very least, art activities provide a welcome distraction from an otherwise stressful experience. Sometimes people get caught up in their thoughts and don't let themselves let loose and just play. This is an opportunity for that."

Visitors to the treatment center also enjoy the artwork, which has begun to decorate the walls.

"We're seeing a lot of talent, but more importantly they're having a lot of fun," Jordan says.



Event Calendar

- **Turquoise Gala** – Sunday, Nov. 6, at Blue Heron Hills Country Club, to support lymphoma research at the Wilmot Cancer Center. Call (315) 986-2173 or go to www.turquoisegala.com.
- **Holiday Plant Sale** – Nov. 1-23. Plan ahead and order beautiful poinsettias and cyclamen for yourself or as gifts. Prices range from \$10 to \$30. Call (585) 242-8988 or go to www.wilmotcancercenter.com.
- **Breakfast Buzz Christmas Spectacular** – Friday, Dec. 23. Radiothon featuring breakfast with Santa, live music and entertainment with Kimberly & Beck from 98.9FM The Buzz. For details call (585) 242-8988.
- **Scooper Bowl** – Sunday, Jan. 29, at Maggie Moo's Ice Cream and Treatery at EastView Mall. Gather sponsors or donations to get a spot in the ice cream eating contest – watch out for brain freeze. The winner gets a party for 12. Teams are encouraged. Call (585) 242-8988.
- **The Lion King** – Sunday, March 12. See the premiere of the touring cast of Disney's "The Lion King." Tickets are \$100 and include a pre-show reception in the Cathedral Room of Auditorium Theatre. Call (585) 242-8988.