



University of Chicago Cancer Research Center

In the News: Our Members in the Media

The University of Chicago Cancer Research Center (UCCRC) publishes this newsletter periodically to provide its members, University of Chicago Cancer Research Foundation members, and other associates with informative articles or press releases regarding cancer and research by our members. If you wish to include a media story in the next issue, please e-mail us at pbutera@medicine.bsd.uchicago.edu.

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Flashes of Hope Lets Seriously Ill Pediatric Patients Be the Star of Their Own Photo Session

University of Chicago Medical Center Newsroom April 1, 2009

Gracey Melon spends most of her time at the University of Chicago Comer Children's Hospital receiving chemotherapy as she fights acute lymphoblastic leukemia. It has not been fun in the hospital for her and her family, except for a few days when she was in the spotlight as the star of her own photo shoot.

These modeling sessions for 12-year-old Gracey and other children and teenagers are organized by Flashes of Hope, a volunteer organization that creates fun, poignant portraits of patients. Conducted by top photographers in the Chicago area, the photo sessions capture the beauty and bravery of each patient when they are seriously ill.

Comer Children's Hospital is the only hospital in Illinois to have visits from Flashes of Hope. This group of dedicated volunteers, including organizers, hair stylists, make-up artists, and photographers, recently began donating their time and skills. Flashes of Hope comes to the Children's Hospital once a month to offer its free services to patients who love to pose for the camera. The organization strives to help patients feel better about their appearances by preparing them for the photographs and giving them extraordinary keepsake photos.

Gracey struck several poses by herself, then with her mom and dad, Pam and Bill. She even hammed it up with a feather boa, floral bandana, and her strand of beads that represent the procedures she has undergone to fight her cancer.

"This is very good for kids with cancer to have a day where they can

feel like they look good and can be a movie star," Gracey said.

Friends and family are welcome to join, posing for the photos to immortalize a close-knit group of patients and their supporters during trying times.



**Comer Hospital Patient
Gracey Melon**

"Flashes of Hope is a real treat for our patients and some families have done multiple sittings," said John Cunningham, MD, Chief of Pediatric Hematology/Oncology at Comer Children's Hospital. "These photo sessions let children and their families escape for a while from their difficult time in the hospital. Their portraits are really striking and beautiful—their personalities really shine through."

Often, patients may not look their best during medical treatment. Stylists help the "models" prepare for their shoot with tasteful make-up and lipstick that help to even out and

brighten up their skin tones. For children with hair loss due to chemotherapy, stylists help them choose a hip hat or wig. Sometimes, patients proudly show their scalps.

Stylists also take care of parents who frequently spend days and sleep overnight at the hospital and may need a little help to look their best. For Pam, Gracey's mom, having a relaxing and fun day with her daughter was a real treat. "These hospitalizations are so hard, especially for Gracey, but also for Bill and me. Sitting in a chair and having professional hair stylists and make-up artists make me look nice was wonderful. And we'll have beautiful portraits to remind us of this time forever," Pam said.

Barrie Dekker, Co-Director of Flashes of Hope's Chicago chapter, said her team smiles too when they see how much patients and families enjoy their session and appreciate the photos. "Transforming the hospital playroom into a photo studio every month, hearing the children giggle, and watching them ham it up for the camera truly warms your heart," she said. Each family is presented with framed enlargements, proofs, and a CD of their photos at no cost.

Photographers with Flashes of Hope are credentialed by the American Society of Media Photographers, the country's leading association for photographers who create images for publication. Their clients range from Fortune 500 companies to celebrities such as Michael Jordan. They donate their talents and materials to Flashes of Hope for the stars at Comer Children's Hospital.

For more information about Flashes of Hope, please visit www.flashesofhope.com.

Grapefruit Juice Boosts Drug's Anti-Cancer Effects

University of Chicago Medical Center Newsroom
April 20, 2009

In a small, early clinical trial, researchers at the University of Chicago Medical Center have found that combining eight ounces of grapefruit juice with the drug rapamycin can increase drug levels, allowing lower doses of the drug to be given. They also showed that the combination can be effective in treating various types of cancer.

For two decades, pharmacists have pasted do-not-take-with-grapefruit-juice stickers on various pill bottles because it can interfere with the enzymes that break down and eliminate certain drugs. This interference makes the drugs more potent. In data presented at the AACR 100th Annual Meeting 2009, the Chicago researchers examine ways to exploit this fruit's medication-altering properties.

"Grapefruit juice can increase blood levels of certain drugs three to five times," said Study Director Ezra Cohen, MD, a cancer specialist at the University of Chicago Medical Center. "This has always been considered a hazard. We wanted to see if, and how much, it could amplify the availability, and perhaps the efficacy of rapamycin, a drug with promise for cancer treatment."

This trial was designed to test "whether we could use this to boost rapamycin's bioavailability to the patient's advantage, to determine how

much the juice altered drug levels, and to assess its impact on anti-cancer activity and side effects," he said.

The study followed 28 patients with advanced solid tumors, for which there is no effective treatment. The dose of the drug increased with each group of five patients, from 15 milligrams up to 35. Patients took the drug by mouth, as a liquid, once a week. Beginning in week two, they washed it down with a glass of grapefruit juice, taken immediately after the rapamycin and then once a day for the rest of the week.

Twenty-five participants remained in the study long enough to be evaluated. Seven of those 25 (28 percent) had stable disease, with little or no tumor growth. One patient (4 percent) had a partial response, with the tumor shrinking by about 30 percent. That patient is still doing well more than a year after beginning the trial. "My first cancer doctor gave me five years to live," said that patient, Albina Duggan of Bourbonnais, IL. "That time runs out next July."

Duggan, mother of four, has a rare cancer, an epithelioid hemangio-endothelioma that originated in the liver and subsequently spread to two vertebrae in the neck and to the lymph nodes. She had surgery and radiation therapy and was evaluated for a liver transplant, but evidence of cancer beyond the liver made her ineligible for a transplant. She "shopped around" for other therapies and was able to keep the disease in check for a year with sorafenib, a drug approved for kidney and liver cancers.

After a year of stable disease, however, her tumor began growing again and she had to look for an alternative therapy. Her doctors at the University of Chicago offered three clinical trials. The most appealing to her was the rapamycin plus grapefruit juice study. She took her first dose March 11, 2008, and is still on the drug-juice combination.

"My tumor is smaller and it's no longer growing. I feel fine. I can do whatever I like and I have no real side effects," she said.

Many patients in the study did report side effects. More than half experienced elevated blood sugar levels, diarrhea, low white blood cell counts or fatigue.



Duggan, more fortunate than most, has had milder side effects, including fragile toe and finger nails and curly hair. "I now have very curly hair," she said, "seriously curly. I have to adjust to it."

Rapamycin, also known as sirolimus, was originally developed to suppress the immune system, preventing rejection in patients receiving a transplanted kidney. Cancer specialists became interested in the drug when they learned that it disrupted a biochemical pathway involved in the development of the new blood vessels that tumors need to grow. But the drug is expensive and poorly absorbed. Less than 15 percent of rapamycin is absorbed when taken by mouth.

This study showed that substances known as furanocoumarins, plentiful in some forms of grapefruit juice, can decrease the breakdown of rapamycin. This makes the drug reach higher levels in the bloodstream, two to four times the levels seen without a juice boost, and thus increases the amount of the drug that reaches its targets.

"That means more of the drug hits the target, so we need less of the drug," said Cohen.

Many of the newer cancer medications, precisely focused on specific targets, are now taken as pills rather than intravenously. Some of these drugs, including rapamycin, can cost thousands of dollars a month. Hence, "this is an opportunity for real savings," Cohen said. "A daily glass of juice could lower the cost by 50 percent."

The study was presented at the AACR's 100th Annual Meeting in Denver in a session on "Late-Breaking Research: Clinical Research 1: Phase I-III Clinical Trials," Poster Section 27, from 1 to 5 PM on Monday, April 20, 2009.



Ezra Cohen, MD

Chicago Experts Support Annual Mammogram Regimen Under Fire in Britain

Medill Reports Chicago April 9, 2009

Chicago specialists disagree with a Copenhagen study that recently brought the practice of routine mammograms under fire in Great Britain.

"The study tried to really dismantle screening women in the 40-50 year range. That's very ill conceived," said Robert Schmidt, MD, Professor of Radiology at the University of Chicago and a mammography expert. "This is certainly the best thing we've got right now so don't try to throw out the baby with the bathwater here."

Breast cancer is the second leading cancer death for women in the United States after lung cancer and affects one in every eight women, according to Dr. Lydia Usha, a medical oncologist at Rush University Medical Center.

The study by the Nordic Cochrane Center collaborative maintained that mammograms expose many women to surgery for breast cancers so slow-growing that they never threaten women's lives.

The study also reported that only one out of every 2,000 women routinely screened for breast cancer in the 50-69 year range will have her life prolonged. But that reduces breast cancer mortality by an estimated 15-20 percent overall, according to the study

that involved 500,000 women.

"At the moment [a mammogram is] the best screening we have for breast cancer," she said. Sometimes non-invasive cancers are removed when discovered by mammograms, but Usha said mammograms are ultimately beneficial.

"Most of the patients in this country would not want to have breast cancer missed in them under the assumption that there is a small chance that it may not become a problem," Usha said. The slow-growing or non-invasive cancers are called ductal carcinoma in situ.

"At this stage in our knowledge we are not able to predict which ductal carcinoma in situ are going to progress to invasive cancer and which are not," Usha said. "Most women in this country don't want to live with cancer that has the potential to become invasive and kill them."

Organizations such as the American Cancer Society and the Breast Cancer Network of Strength both encourage mammograms.

Mammographies are still regarded as the standard for detecting breast cancer at its earliest stages, according to the Network of Strength's position paper on screening mammography. "We will always take new opinions and evidence based on science,

but for the time being we agree that mammograms are the gold standard for detecting breast cancer," said Christina Koenig, the Director of Media Relations and Communications for the Network of Strength.

"Right now the best advice we can give, is that the decision to have a screening mammography should be discussed between the patient and her health care provider," she said.

The American Cancer Society recommends yearly mammograms starting at age 40 and breast self-exam for women starting in their 20s.

Usha said the primary problem with mammograms is not the false positive results that may lead to biopsies or surgeries for non-invasive cancers. "More of an issue is that mammograms can be a false negative, meaning that they don't show cancer when there is a cancer," she said.

This was the case for Koenig, now 46, who was diagnosed with cancer at age 39 after she found a lump in her breast that didn't show up on a mammogram.

"In my case [the mammogram] wasn't that important because I could feel the tumor," Koenig said. "My mom on the other hand, her cancer was detected through a screening on a mammogram." Prior to that, her family had no history of breast cancer, she said.



Naltrexone Helps Smokers and Drinkers

UK Medix News April 4, 2009

In a recent clinical test using a drug called Naltrexone (which has regulatory approval for the treatment of dependency on alcohol) it was observed that the drug had a positive effect on helping people to quit smoking.

The results showed that heavy drinkers who were also smokers not only reduced the amount of drinking that they did over an eight week treatment period but they also were significantly more likely to quit smoking than the drinkers who were taking a placebo. This research is interesting because smokers who drink on a regular basis are known to be particularly 'treatment resistant' when it comes to smoking cessation.

The researchers, who were led by Andrea King, PhD, from the University of Chicago, assessed that naltrexone could be particularly effective in helping the 'drinker/smoker' category of addiction.

Dr. King explained that the research was done on a small group of people and therefore could not be 100 percent conclusive, but should clinical testing be confirmed with a larger sample of individuals, then naltrexone may be prescribed to drinkers/smokers who want to quit smoking.

Many smokers talk about how certain things set them off smoking. In many cases, the biggest trigger for smokers is having a drink. Which is why a drug that could help control that urge could have a useful application with a large group of smokers.



EDITOR'S NOTES:

This issue of "In the News" highlights the important contributions our members are making in all phases of cancer research and outreach.

The article on page 1 features Flashes of Hope, a volunteer organization that takes portraits of cancer patients and their families at Comer Children's Hospital.

On page 2, cancer specialist Ezra Cohen, MD, is featured in a news story about his recent research showing that grapefruit juice boosts the anti-cancer effects of the drug Rapamycin.

On page 3, Robert Schmidt, MD, Professor of Radiology and a mammography expert, is quoted in an article about routine mammograms.