Looking for Cancer in the Crowd
Personalizing Cancer Treatment by Studying Populations

Over 1.5 million Americans will be diagnosed with cancer in 2013. This aggregate statistic masks both the different ways individuals react to such a diagnosis and the latest research showing that specific cancers, even those occurring in common sites like the breast or colon, may be as individual to the patient as their fingerprints. This is because most cancers develop as a result of—or at least in the context of—each person’s unique mix of DNA and life experiences.

This may seem to make cancer more difficult to treat. In truth, though, understanding the exact molecular makeup of both the patient and their tumor may allow doctors to treat them with greater precision and fewer side effects. As a result, physicians are becoming better able to tailor cancer treatment to each patient, rather than prescribing a one-therapy-fits-all approach.

Paradoxically, to better understand individual cases of cancer researchers study large, diverse groups of patients in order to tease out the similarities and differences in their diseases. Looking for clues about cancer within big groups is the domain of epidemiologists, also called “population scientists,” who study the patterns, causes and effects of disease within defined populations. Their ultimate goal is to improve clinical care practices and public health policies to reduce the incidence and burden of cancer.

Traditional cancer epidemiology focused primarily on environmental causes, such as sun exposure contributing to skin cancer or smoking to lung cancer. More recently, the mapping of the human genome offered unprecedented clues about the relationship between genes and disease, and spurred tremendous interest in the roll of genetic effects. As a result, physicians are becoming better able to tailor cancer treatment to each patient, rather than prescribing a one-therapy-fits-all approach.

Paradoxically, to better understand individual cases of cancer researchers study large, diverse groups of patients in order to tease out the similarities and differences in their diseases. Looking for clues about cancer within big groups is the domain of epidemiologists, also called “population scientists,” who study the patterns, causes and effects of disease within defined populations. Their ultimate goal is to improve clinical care practices and public health policies to reduce the incidence and burden of cancer.

Traditional cancer epidemiology focused primarily on environmental causes, such as sun exposure contributing to skin cancer or smoking to lung cancer. More recently, the mapping of the human genome offered unprecedented clues about the relationship between genes and disease, and spurred tremendous interest in the roll of genetic
Message from the Director
Dynamic Times for Cancer

It is a time of change and risk for biomedical research. Exciting new technologies and scientific advances are fueling progress, while limited financial and human resources restrain our momentum. New questions and opportunities abound, but our ability to pursue them is undermined by persistent economic and budgetary uncertainties.

Fluctuations in research funding, such as those that are in store with sequestration, can interrupt ongoing research projects and prevent others from getting underway. It is ever more difficult for young investigators to start their careers and pursue their passion for discovery. In these dynamic yet uncertain times, private philanthropy is more important than ever. The mission of the Stanford Cancer Institute is to pursue the very best in cancer research and efficiently translate it into improved patient care. We look to our community to partner with us and help the work continue.

This issue of SCI News contains multiple examples of the outstanding scientific and intellectual leadership exercised by Cancer Institute members. We profile two established leaders who have recently come to Stanford precisely because of our unique ability to shape the future of cancer research. Renowned breast cancer researcher George Sledge, Jr., MD, is the Department of Medicine’s new chief of oncology, and colon cancer expert Robert Haile, Dr.P.H., now heads the Institute’s expanding programs in the population sciences. Both men highlight the growing importance of genomic analysis and information technology in cancer research, and outline how Stanford is prepared to lead in this new era.

Allison Kurian, MD, MSc, provides insights into current controversies involving mammographic screening, and explains how she and her colleagues are working together to provide tools for women at increased risk for breast cancer. She is also providing important data for doctors, patients and policy-makers who are trying to determine the impact of a new California law related to mammography.

We also learn about another kind of Stanford leadership: undergraduate students who volunteer their time and energy to provide a very special summer camp experience for the children of parents with cancer.

Last, but certainly not least, this issue pays tribute to Karl Blume, MD, a dedicated physician and leader, and a vital force in the creation of the Stanford Cancer Institute. Dr. Blume was a valued advisor and friend to a great many of us, and he is greatly missed even as his legacy lives on.

Beverly S. Mitchell, MD
Director

The Stanford Cancer Institute

The Stanford Cancer Institute provides support and coordination for the range of cancer-related activities occurring at Stanford University, Stanford Hospital and Clinics, and the Lucille Packard Children’s Hospital. Our 300-plus faculty members belong to more than 30 academic departments, and represent the array of disciplines involved with comprehensive cancer research and treatment.

The Institute is a National Cancer Institute-designated Cancer Center, with a scientific agenda combining laboratory research, clinical study and population science. The Institute also engages in patient care, community education, clinical trials, as well as support and training for the next generation of cancer physicians and researchers.

Simply put, all of our members and resources are focused on one goal: to reduce the occurrence and impact of cancer.

Stanford Cancer Institute News is a quarterly update for members, supporters and friends. On behalf of our members and staff, we thank you for your ongoing support and welcome your feedback and inquiries.

Beverly S. Mitchell, MD
Director

David Rubenson
Associate Director of Administration and Strategic Planning

Michael Claeys
Sr. Communications Manager

Contact

Stanford Cancer Institute
Lorry Lokey Building/SIM 1
265 Campus Drive, Suite G2103
Stanford, CA 94305
650.723.1680
scinewsletter@stanford.edu
cancer.stanford.edu
In Profile

George Sledge, Jr., MD

Chief of Oncology in Stanford’s Department of Medicine

This January, George Sledge, Jr., MD, began his tenure as chief of oncology in Stanford’s Department of Medicine. Dr. Sledge is a clinician-scientist and an internationally acclaimed innovator in the treatment of breast cancer. A recognized thought leader, Sledge brings an expansive research vision to his new post.

“Stanford is exciting to me because of its record of clinical excellence and its standing as one of the great research universities on the planet,” said Sledge.

He joins Stanford after nearly three decades at Indiana University, where he was a professor of medicine and pathology, and co-directed the breast cancer program at the University’s Simon Cancer Center.

Now a member of the Stanford Cancer Institute, Sledge will help implement SCI’s mission to shape, support and coordinate cancer research and patient care throughout the University.

“George Sledge is a very highly respected leader within the cancer community,” said SCI Director, Beverly Mitchell, MD. “He brings an incredible amount of knowledge, vision and opportunity to the Institute.”

Sledge served as president of the American Society for Clinical Oncology from 2010-2011, and has sat on the board of directors for many years. He credits this experience with broadening his research interests beyond breast cancer.

“I became fascinated with the application of the latest scientific advances to all cancers, and that is an important reason for taking the position at Stanford,” said Sledge.

Stanford pioneered techniques for successfully treating non-solid tumors, particularly lymphoma, and Sledge hopes to achieve similar success with solid tumors. To do so, he will recruit additional researchers to Stanford, and work to integrate knowledge about cancer genomics with new technologies and treatments for patients.

“Stanford’s opportunity to create the future of cancer medicine is unparalleled.”
— George Sledge, Jr., MD

Genomics—the study of an organism’s entire genetic code—is one of the hottest areas of cancer research. Simply stated, cancer can be caused when errors, or “mutations,” occur in the DNA of cells as they divide. Some mutations are harmless, but others create the aggressive, destructive behaviors of cancer cells. DNA of malignant cells can be analyzed for the specific cancer-causing mutations, and then drugs may be engineered to target those mutations.

New drugs are critical, but Sledge adds that knowing the genetic profiles of the patient and their tumor also helps determine which existing drugs, at what dosage and in what combinations, will be most effective and safest for patients. He calls this “thinking inside the box,” by which he means maximizing patient outcomes by improving the use of currently available treatments.

Genomic studies are also revealing that what where previously thought of as different types of cancer may be caused by the same mutation, and therefore might be vulnerable to the same treatment strategies.

All this genomic analysis generates massive amounts of data, forcing scientists to sift through mountains of information to find the clinically relevant tidbits. Sledge sees Stanford as uniquely positioned to meet the challenge because it is surrounded by innovative information technology companies, many of which sprung directly from its legendary computer science department.

Sledge also sees partnership opportunities with biotechnology and pharmaceutical companies, and notes that more companies than ever before are working on cancer treatments.

Sledge points to Stanford’s outstanding bioengineering and stem cell research programs, both of which impact the study and treatment of cancer. For example, so-called “cancer stem cells” are now believed to play a major role in cancer recurrence because they are different than other tumor cells and less susceptible to many therapies.

“If 99.9 percent of the cancer cells are wiped out by a treatment, but the cancer stem cells survive, they will likely generate new cancer cells,” said Sledge. “However, they also have different characteristics, which means they may be targeted by different drugs.”

Improving cancer research and care requires overcoming numerous technical and logistical hurdles. Sledge is committed to applying the powerful tools of modern science—genomics, molecular chemistry, stem cell biology and information technology—to the effort. He assumes his new position with an appreciation of the challenges, a clear vision for how to move forward and a strong sense of optimism.

“Stanford’s opportunity to create the future of cancer medicine is unparalleled,” said Sledge. “I can’t think of any place more suited to bring new understanding about the biology and genomics of cancer together to help patients. It’s very exciting.”
Looking for Cancer, continued from page 1

abnormalities in the development of cancer. There is now strong interest in understanding how environmental and genetic factors work together to cause cancer.

Stanford Cancer Institute’s population scientists are coordinated through two related programs, Cancer Epidemiology and Cancer Prevention and Control. In the Epidemiology Program, researchers examine large data sets—both environmental and genetic—to help identify the causes of cancer and the impacts of treatment. The Cancer Prevention and Control Program focuses on ways of intervening to reduce risks.

Prevention efforts span a wide range, from developing new cancer-blocking drugs to encouraging people to change behaviors (e.g., stop smoking, increase physical activity, eat healthfully) to reduce their risk of cancer. Research on cancer control often focuses on early detection, from development of better screening tests to behavioral interventions to enhance compliance with screening guidelines. Investigators are now better able to use genetic information to direct interventions to specific groups who are most likely to benefit.

SCI’s two integrated programs stimulate and support multidisciplinary collaborations from diverse scientific disciplines. Together they study cancer’s causes, patterns of occurrence, treatment practices and patient outcomes, all to improve our ability to prevent cancer and improve patient care.

“Population scientists play a critical role across the entire spectrum of cancer research,” said Robert Haile, Dr.P.H., SCI’s new Associate Director of Population Sciences. “One of the exciting things about coming to Stanford is the opportunity to bring in other outstanding programs from outside the School of Medicine to collaborate with the Cancer Institute.”

Haile, who began his tenure in January, is an accomplished scholar in the field of genetic epidemiology, and has made seminal contributions to understanding genetic and environmental risk factors in the development of colon cancer. He came to Stanford after 18 years at the University of Southern California, the last five spent leading the USC Norris Cancer Center’s programs in Cancer Causes and Prevention, which he helped build into a national leader.

“Dr. Haile is one of a small number of scholars who bridge the gap between traditional epidemiology and genomics.” — SCI Director, Beverly Mitchell, MD

Haile cited an intriguing example involving Lynch Syndrome, which is caused by a mutation in a set of genes responsible for repairing DNA damage, and is characterized by a high risk for selected cancers. In Japan, four or five generations ago, gastric cancer was the predominant cancer in families with Lynch Syndrome, while colorectal cancer was very rarely observed. Now, in those same families—with the same genetic mutation—colorectal cancer predominates and gastric cancer is observed much less often.

“The entire clinical picture changed over just a few generations, even though the genes are exactly the same,” said Haile. “It is a classic example of needing both the genetic and environmental information so you can see how they interact to cause cancer.”

Only about 5-10 percent of cancer cases arise from an inherited mutation, with the rest likely caused by the interaction
of inherited and environmental factors. It is a daunting task to collect both genetic and environmental data for large cohorts of patients, particularly when trying to include populations that migrate between countries or continents. Haile has approached this challenge by teaming with international collaborators to create shared data repositories. He currently helps lead three: the Colon Cancer Family Registry (CCFR), the International Mismatch Repair Consortium (IMRC) and the Latin American Cancer Epidemiology (LACE) Consortium.

The oldest of these, CCFR, was founded 15 years ago and contains tissue samples and information from over 10,000 families with a history of colorectal cancer, making it the largest resource in the world for studies of colorectal cancer’s causes, treatment and prevention. CCFR is a “virtual registry,” meaning its samples are housed in cancer centers throughout the US, Canada and Australia, and all the information is shared electronically and made available to investigators worldwide via a centralized data center.

IMRC contains information from over 7,000 families with Lynch Syndrome. The consortium helps integrate the activities of research groups on six continents to address the myriad of cancer-related questions associated with this high-risk population.

The LACE registry is aimed at fostering and coordinating much needed cancer epidemiology and genomics studies in Latin America. Haile noted that, historically, most studies have been done on people of European decent, but it is critically important to compare the genetics of people of different races living on different continents.

“It is the ideal way—probably the only way—to simultaneously look at genetic variation and environment variation,” said Haile.

Of course, such large, complex studies generate massive amounts of information, presenting a data management challenge, but one that Stanford is well positioned to tackle. Haile pointed to strengths in genetics, statistics, bioinformatics, and the opportunities provided by the University’s ties to Silicon Valley information technology companies.

“It’s the frontier of science: how to analyze high volumes of data to quickly identify the important players for cancer,” Haile said. "Handling big data is one of Stanford’s strengths, and it is one of the reasons I wanted to come here.”

Haile is also enthusiastic about other opportunities for the population science programs at Stanford. In addition to its intellectual and technological capabilities, Stanford benefits from California’s diverse demographics, including the fastest growing major demographic group, Hispanics, and the largest migrant group, Asians.

“My goal is for Stanford to launch population studies nationally, and then reach out to the countries from which these groups originate—Latin America and Asia—to develop well-integrated studies that are international in scope.”

He would also like to expand Stanford’s cancer disparities research, which looks for the underlying causes of different cancer rates and outcomes among racial and ethnic groups. The SCI’s Community Partnership Program is currently studying such disparities in several California communities, and is also working to increase minority enrollment in cancer clinical trials. In addition, the Stanford Prevention Research Center does outstanding community-based research in multiple racial and ethnic groups, and is poised to substantially increase their studies of cancer outcomes in collaboration with Haile.

Haile also intends to increase the cancer prevention and control efforts in high-risk populations—families that have a historic pattern of cancer—like Lynch Syndrome carriers. Such families are important to evaluate for genetic or environmental factors that lead to their high cancer rates.

Again Stanford has a number of strengths in this area, including an outstanding genetics program, led by Michael Snyder, PhD, a regarded high-risk clinic directed by James Ford, MD, and the advanced imaging for early detection effort led by Sanjiv (Sam) Gambhir, MD, PhD. Early screening is vital to improve the chances for early intervention in high-risk families.

Haile is off to a fast start. Within a month of starting at Stanford, he was informed that the National Cancer Institute would award a grant of approximately $15 million to support the continued work of the Colon Cancer Family Registry, which Haile guides with co-leaders Mark Jenkins, PhD, of the University of Melbourne, and Noralane (Laney) Lindor, MD, of the Mayo Clinic.

The Stanford Cancer Institute is excited to have Dr. Robert Haile join in leading our many dedicated multidisciplinary researchers who pursue science at the population level in order to improve the prevention, detection and treatment of cancer—one patient at a time.
Research and treatment advances have dramatically improved the prognosis for the over 200,000 American women diagnosed each year with breast cancer. We are finding cancers earlier, removing them with fewer side effects and we have a new arsenal of more effective therapeutics. Still one of the big stories this past year has been the debates about what women can and should do to find breast cancers before they become dangerous.

Women of average risk have a 1 in 8 chance of developing breast cancer.

Though they represent one of the most common cancer screening procedures, mammograms are currently at the center of two of these debates. A recent high-profile study challenged the benefits of widespread mammogram screening. Another controversy centers on a new state law in California, which mandates that physicians inform women with dense breast tissue that mammograms may not be sensitive enough for cancer detection, but it is unclear what women should do with that information. There is widespread agreement that women at high risk for breast cancer should undergo intensive surveillance, but the definition of high risk is itself a moving target.

For insight into these issues, SCI News turned to Cancer Institute member and breast cancer expert Allison Kurian, MD, MSc, assistant professor of medicine and health research and policy. In her eleventh year at Stanford, Kurian divides her time between caring for cancer patients and researching which women are likely to get cancer, for which women cancer will be life threatening, and what can be done to improve patients’ outcomes. She also leads the women’s cancer genetics clinic in the Stanford Women’s Cancer Center (cancer.stanford.edu/womenscenter). A component of the Stanford Cancer Genetics Program led by James Ford, MD, associate professor of medicine and genetics, the clinic provides genetic testing, cancer risk assessment and management recommendations primarily for patients at high risk for breast and ovarian cancer.

Do No Harm

The New England Journal of Medicine recently published a study asserting that mammography screening does not save lives, and actually causes harm by subjecting women to unnecessary and harsh treatments. One of the authors also penned an opinion piece in the New York Times, ensuring that their claims received wide coverage.

Kurian expressed reservations about some of the study’s methods (as have other researchers), and concluded that despite all the attention it generated, the authors’ analysis was unlikely to influence how doctors treat their patients.

“With individual patients there are many factors that might cause us to think differently (than the population average) about their personal risks and the potential benefits of screening,” said Kurian.

Kurian believes mammography is an effective annual test for women of average risk: defined as a 1 in 8 chance of developing breast cancer. Women at high risk may require additional and more expensive tests, like magnetic resonance imaging (MRI) scans. The American Cancer Society (ACS) defines “high risk” women as those with at least a 1 in 4 chance of cancer, approximately twice the average risk.

Women carrying specific changes, called mutations, in the genes known as BRCA 1 and BRCA 2 have inherited a very high risk for breast and ovarian cancer. For women lacking these or other high-risk gene mutations, risk assessment is a more nuanced and uncertain process. There are a number of considerations, but the primary factors include whether a close family member carries an identified gene mutation, whether the family has a history of certain cancers or whether the woman herself has previously had cancer.

Although BRCA 1 and BRCA 2 mutations are found in only about 5 to 10 percent of all breast cancer cases, their presence influences the recommended plan of care. Moreover, these mutations greatly increase the likelihood of a second breast cancer or ovarian cancer. It is therefore recommended that carriers of BRCA mutations be screened annually with both mammogram and MRI scans—beginning at age 25. ACS and other professional cancer organizations recommend additional screening—including MRI scans—for high-risk patients, as defined by their physicians.
Women of normal risk are advised to begin annual mammograms at age 40.

To help women with BRCA mutations assess their options, Kurian and Sylvia Plevritis, PhD, created a website called the “Decision Tool for Women with BRCA Mutations,” (breastool.stanford.edu). Plevritis, an associate professor of radiology and an SCI member, used clinical evidence to design a computer model that simulates life histories of women with BRCA mutations, estimating their rates of cancer diagnosis and survival.

Together, Kurian and Plevritis developed the online decision tool, enabling women to input their age, mutation type and other factors, and compare strategies for management of their cancer risks, such as breast screening with mammogram and MRI, or preventive mastectomy. The online BRCA decision tool helps inform patients and their doctors about options for reducing cancer risk, and helps to facilitate shared decision-making between physicians and patients. The popular website has received more than 6000 visits since it went live in 2012.

**States of Confusion**

California and several other states have recently adopted laws requiring women receiving mammograms to be told if they have what is known as “dense breast tissue,” and to be advised that mammograms have limited ability to detect tumors in dense breasts. Some advocates argue that the laws provide potentially life-saving information for the approximately 40 percent of women who have dense breasts.

“Dense tissue generally looks white on a mammogram, as do cancers, so detecting cancer can be like searching for a polar bear in a snow storm,” said Kurian.

Women with dense tissue may opt to undergo more sensitive scans, like ultrasound or MRI. However, some medical groups claim that the significance of tissue density in breast cancer is uncertain, and that the laws may needlessly frighten women and lead to many thousands of unnecessary and costly procedures. It remains unclear how government and private insurers will respond to the California law, which goes into effect April 1.

“The challenging thing about this law is that it doesn’t provide much of an infrastructure for helping patients,” said Kurian. “Women have to be told, but then what do they do? I don’t think anyone has the answer yet.”

She added that physicians at Stanford, including Debra Ikeda, MD, professor of radiology, are leading research to track how physicians and patients react to the law, with the intent of informing practical and policy responses. Ikeda is a member of the California Breast Density Information Group, which has brought together academic radiologists, oncologists and risk assessment personnel from major universities in California to determine how best to respond to the new law.

“We anticipate that this research will help inform all parties—patients, doctors and providers—so that they can base their decisions on the best available data,” Kurian said.

Whether in the debates mentioned above, or the myriad of other cancer-related questions, the researchers and clinicians who make up the Stanford Cancer Institute are dedicated to tackling the scientific, clinical and social issues that accompany the delivery of optimal cancer care.

For more information about the Stanford Breast Cancer Program, please visit http://cancer.stanford.edu/breastcancer.
In Conversation
Heather Paul

For the past twelve years Stanford undergrads have volunteered their time and energy to run a summer camp exclusively for the children of cancer patients. The students are the organizers, fundraisers and counselors for Camp Kesem, a week-long camp offered free of charge to local kids whose parents are in cancer treatment, recovery or who have died from cancer.

Camp Kesem (kesem is Hebrew for “magic”) began as a project of Hillel at Stanford, a campus Jewish community center. The program has since gone national, with 37 college chapters in 22 states, including five in California. Over 2,100 children participated in 2012.

Stanford’s chapter continues to grow, and last year the YMCA campground they use in the Santa Cruz Mountains was filled with 131 campers and 75 student counselors.

SCI News recently spoke with Heather Paul, the director and sole employee of Camp Kesem at Stanford.

Q: What is the magic of Camp Kesem?
The community is the magic. It is the reason our campers look forward all year long to one week of camp. Camp Kesem is a lot of things: a camp, a retreat and an intervention; but most of all it’s a community, lovingly shaped by a team of incredible students.

Q: How do you find your counselors?
We do information sessions and post flyers on campus, but mostly we rely on word of mouth and individual recruiting by our current counselors. Every student who applies goes through an extensive interview process, including a written application and individual and group interviews. Then all the coordinators (lead counselors) get together to review and select the candidates. It’s a long process, but the results are always very good. We have a waiting list of students who want to be counselors.

Q: Do the counselors tend to have family experiences with cancer?
Many do, but it’s not a requirement.

Q: What kind of training do counselors receive?
We hold a mandatory 48-hour training retreat at the campsite. There is structured training in childcare and behavior, mandatory reporting and, of course, grief and bereavement. They also learn about camp stuff, like arts and crafts, games and so on.

For me, the most important part of the retreat is that the counselors become a community. They are role models for the campers, and if they arrive at camp as friends, treating each other with love and respect, then the campers see how to behave. Counselors also socialize, hold fundraisers and review their campers’ files to prepare for camp, so there are lots of activities to help them bond.

Q: Tell us about the nicknames?
Counselors choose their own unique nicknames, and it is the only name used during camp. Your camp name represents the best version of yourself, and it should remind you of all the things you love about you. There’s also a whimsical aspect to the names—it’s just fun to say, “Hi, Sparkle!”

Q: How does the camp incorporate the discussion of cancer?
Most of the time it is just summer camp. It’s fun, and our campers can get away from cancer if they want. There is one night where we specifically address cancer at a ceremony called “Roots,” referring to the common roots we share.

The entire camp enters the dinning room holding onto one long piece of rope. A counselor goes through and cuts it, so everyone gets a piece. The campers divide by age groups into separate areas, and counselors begin the discussion in each group by sharing their own cancer stories. Campers see that this is a safe place to share their story, and that every story is important.

Q: Do all campers share?
Some just listen or do quiet activities. Some campers come for years without talking about cancer. When they do decide to talk, they always say how proud they are to have shared for the first time.

Nightly “cabin chats” are another important part of camp. Counselors in each cabin sit the campers in a circle and begin the dialogue with open-ended questions like, “What was your favorite part of today?” Campers can talk about whatever they want, including cancer. The Roots ceremony is too big for some campers, so they share in cabin chat.

Q: Are there special considerations for children dealing with such stressful situations?
These kids may be going through some really tough stuff, and it affects their behavior. Grief can come out as anger or frustration, and our counselors are prepared for that. Of course, counselors don’t provide...
therapy, just support, understanding and love. Our camp is a safe place for children to get angry or sad, and it’s a safe place for them to take a break from cancer and know that everyone understands.

Q: Are counselors offered any support? We have a licensed therapist on site during the training retreat and the entire week of camp. She helps campers, but her main role is with the counselors. And the counselors do a great job of supporting each other.

Q: Why do you have so many counselors (at least one for every two campers)? Our counselor-to-camper ratio is important for many reasons. It creates more opportunities for one-on-one interactions and close connections—most campers feel like they have “their” counselor. When a parent is sick, children often don’t get as much individual attention at home, so we want to make their week of camp all about them.

Q: Do you stay in touch with campers outside of camp? We send them birthday cards and care packages, and we attend their sporting events, performances or graduations. We’ll attend anything a camper or family member asks us to, including memorial services.

In one case we got a call that a parent’s situation had worsened and they had been moved into hospice care. The other parent said the children were terribly sad and asked if we would come visit. A few counselors went with a guitar and games, and spent several hours playing, singing and helping the kids manage.

Q: That is a lot to ask of “camp counselors.” Counselors often become like members of the family. And yes, going to a memorial service is hard, but when you see the look on a child’s face when they see a row of their counselors sitting there, it’s absolutely worth it. I am really grateful to be part of a community that does things like that.

Q: What attracted you to Camp Kesem? I first learned of it through the job posting, and was immediately drawn to its wonderful mission and the fact that it is student run. I see infinite potential when I look at a college student, and I was excited about the opportunity to work with so many amazing young people.

Q: In three years as director, what has surprised you? What continues to amaze me is how much time, effort and heart the students put into it. Even though they are busy with schoolwork and other activities, they seem to be always thinking about their kids.

Q: Where do the campers come from? Mostly from the Bay Area, but there are families who move away and continue to send their kids to camp. We have had campers come back from as far away as Alaska and Japan.

Q: Are you looking for more campers? We take new campers every year because others graduate or move away. Unfortunately, we can’t always take everyone, so we refer to chapters in Berkeley and Davis. If you know a child of a cancer patient in California, we’ll find them a camp.

Q: How do families learn about Camp Kesem? Word of mouth is the most common way. We reach out to hospital social workers and have relationships with other local cancer support programs, like Breast Cancer Connections (bcconnections.org) and FamiliesCAN (www.familiescan.org).

Q: What are your plans for the future? We are expanding our community outreach efforts. We also want to provide counselors with more age-specific behavioral training by drawing on experts here at Stanford. That will also help with our goal of becoming more integrated within the campus. The more people who know about us the more children and families will benefit from what we do.

Q: What can people do to help? If they know a family with a parent affected by cancer, please contact us; we want to help. Also, Camp Kesem’s funding depends entirely on community and foundation giving, with about 60 percent of funds coming from private donors. We are committed to keeping camp free for our families, and our students work hard year-round to raise our budget. We are so grateful to our supporters who help us make it happen!
A Word About Nutrition and Cancer

How does diet affect cancer risk? Many people are uncertain due to confusing and often conflicting dietary recommendations.

The scientific community is continually studying the role of diet in the development of cancer. Many of the findings are preliminary, but more is being learned every day. Research suggests that intake of fruits, vegetables and cereal grains can reduce the risks of some forms of cancer.

There is also evidence that fat intake of greater than 30 percent of total calories can increase the risk of some cancers. Of course, maintaining a healthy diet has many other benefits, such as lessening the chances of developing heart disease, hypertension, diabetes and obesity.

“Obesity is seen as an important link with some cancers, including endometrial cancer,” said Institute member Robert Haile, Dr.P.H., Associate Director of Population Sciences. Endometrial cancer affects the lining of the uterus.

Numerous health organizations offer cancer-related dietary recommendations, including the National Cancer Institute (www.cancer.gov) and the American Cancer Society (www.cancer.org).

The Stanford Cancer Institute website includes detailed information on healthy eating, dietary concerns for before, during and after cancer treatment, and even special recipes. It is important to keep in mind that nutritional needs of people in cancer treatment may be significantly different from general dietary recommendations. More information can be accessed at: cancer.stanford.edu/information/nutritionAndCancer.

Looking Ahead

Most cases of cancer result from a combination of genetic and environmental factors, including diet. Advances in DNA analysis enable the next generation of dietary studies to involve genetic monitoring, to more thoroughly access how nutrition affects cancer risk.

“We need to look at dietary factors in genetically defined sub-groups and track what impact diet has on genes,” said Haile.

While the results of those studies are awaited, practicing regular exercise and good nutrition—simply defined as lots of fruits, vegetables, whole grains and fiber, and moderate intake of animal products, sugar and fat—remains a proven healthy strategy.

SCI Educational Materials and Resources

The mission of the Stanford Cancer Institute includes community outreach and education about cancer-related issues. To this end, SCI maintains a robust website (cancer.stanford.edu) with rich content categorized around patient care, clinical trials and research.

SCI also supports and participates in numerous local events to educate and raise awareness about the realities of cancer and the importance of research. In addition to various walks, runs and conferences, SCI is again partnering with Canary Foundation to promote the third annual Canary Challenge bike ride to be held September 28 in Palo Alto. More information on the 2013 Challenge can be found on their website: canarychallenge.com.

To enhance the educational impact of such events, SCI has created a series of issue-specific information cards. Each eye-catching card contains basic facts, easy to understand guidance and lists of additional Stanford resources tailored to a single topic, such as breast cancer. Cards are currently available for skin, colorectal and breast cancer, with more in development. The information cards can be requested free of charge by phone at 650.723.1680 or via email at scinewsletter@stanford.edu.

SCI News is the quarterly update for members, friends and supporters of the Stanford Cancer Institute. This and previous editions of SCI News can be viewed online at cancer.stanford.edu/news by clicking “Newsletter” in the left column.

If you would prefer to receive the electronic edition of SCI News by email, please send your request to scinewsletter@stanford.edu.
Remembering a Leader

Karl Blume, Founder of Stanford’s Blood and Marrow Transplantation Program

Karl Blume, MD, an emeritus professor of medicine at Stanford University School of Medicine who started its blood and marrow transplantation program and spearheaded its effort to attain Cancer Center designation from the National Cancer Institute, died at his home in Palo Alto on January 9. He was 75.

“Dr. Blume reminded us that, although the profession of a physician-scientist encompasses many duties, including research, teaching and patient care, in the end it is always the patient who is most important,” said Lloyd Minor, MD, Carl and Elizabeth Naumann Dean of the School of Medicine. “He was a remarkable individual who will be sorely missed in the Stanford community. He leaves behind an enduring legacy of a robust, successful stem cell transplant programs, laid the critical foundation for the Stanford Cancer Institute, mentored and guided countless students, trainees and faculty, and deeply loved his family and Stanford. I value my friendship with Dr. Blume exceedingly and will miss him tremendously. He leaves an indelible mark on all of us.”

Blume not only built the bone marrow transplantation program at Stanford from the ground up, but also shepherded it through a multitude of clinical advances and changes. The program grew from about 40 transplants during its first year in 1987 to more than 300 transplants during 2012.

In 2003, Blume dedicated himself to achieving National Cancer Institute-designated Cancer Center status for the Stanford Cancer Institute, which would afford greater access to NCI resources, funding, and clinical trials. The designation was awarded in 2007 after a three-year grant application process.

“The entire Stanford Cancer Institute is saddened by Karl Blume’s passing,” said Beverly Mitchell, MD, SCI Director and George E. Becker Professorship in Medicine. “Karl served as a trusted advisor on almost every issue of importance during the initial planning of the cancer institute. His dedication and commitment were extraordinary. We could always count on Karl for thoughtful and objective advice on virtually any subject, and his compassion, steadiness, work ethic and sense of fairness set the standard for collaborative work. He was an inspiration to us all, and we will miss him greatly.”

Blume earned a medical degree in 1963 from the University of Freiburg, Germany. He came to the United States as a research fellow in hematology at the City of Hope in 1971, and became the head of its Department of Bone Marrow Transplantation in 1975.

Memorial contributions may be made to the Stanford Cancer Institute Discovery Fund in memory of Karl Blume, MD.

The Cancer Discovery Fund is a powerful vehicle for putting donors’ gifts to work in critical areas of cancer research, such as:
- Accelerating early-stage drug development
- Supporting new ideas by funding innovative early discovery research
- Recruiting and retaining world-class faculty and staff
- Providing the most sophisticated technologies that allow researchers to unlock future discoveries

Your generosity to the Stanford Cancer Discovery Fund makes research advances possible. Please send contributions to:
Medical Center Development
3172 Porter Drive, Suite 210
Palo Alto, CA, 94304

Excerpt of a news release from the medical school’s Office of Communication & Public Affairs.
SCI Presents 2012 Spirit of Hope Awards

On December 3, 2012 the Stanford Cancer Institute hosted the annual Spirit of Hope luncheon to thank its friends and supporters, and to honor outstanding contributors within the cancer community. Spirit of Hope Awards are presented to philanthropists, community organizations, corporations and foundation leaders whose work has made a significant impact on cancer awareness, research, treatment or prevention. Institute Director Beverly Mitchell, MD, presented the 2012 Spirit of Hope Awards:

Outstanding Health Care Organization
The Leukemia & Lymphoma Society

Outstanding Philanthropist
Don Listwin, founder of Canary Foundation

Outstanding Foundation Grant Maker
Canary Foundation

Outstanding Cancer Advocate
Lisa Niemi Swayze