

The hospital is the one institution in society entirely focused on care, and yet it is a place no one really wants to be. Why? Well, consider the typical hospital experience for a surgical patient and their family. Upon admission, the patient is completely undressed, all their clothes, personal belongings and identity put in a plastic bag. The patient is placed on a gurney in a semi-private “holding” area, their family hovering around uncomfortably, surrounded by dozens of families and patients in the same predicament. A number of nurses and assistants ask very personal questions, never to be seen again. A quick goodbye and the family is directed to a waiting room several floors away, being told the earliest they will hear anything will be hours later. The patient, sedated and therefore not completely coherent, is whisked into the operating room for surgery. The patient awakes in the recovery room, lying in the midst of 10-20 strangers in a similar state of semi-consciousness. A completely different set of nurses helps with pain and nausea, never to be seen again. Still groggy, the patient is taken to another floor, greeted by yet another group of nurses and, finally, their family, clutching that same bag of clothes. The day has been long and anxious, frightening and boring.

There must be a better way. I believe we have found it. Taking a page from the obstetricians, who learned long ago that the experience of childbirth should be shared, we created a new inpatient experience for our urological patients. Retrofitting the birthing suites at UPMC Shadyside Hospital and inheriting a staff comfortable providing care in the midst of a family, we created the Urological Comprehensive Care Program. Patients are admitted to the same room they will inhabit during their entire hospital stay; they are met by the same team of nurses who will see them after surgery and during the time they are in the hospital. After preoperative evaluation by the anesthesiologist, it’s up the hall to the operating room. The family is encouraged to stay in the patient’s room (all private), with their loved one literally next door: there is no mystery about what’s going on as the surgeon talks with them immediately after the operation. After about one hour of recovery time, the family is permitted to stay with the patient around the clock, taking advantage of the privacy and luxury of this small apartment.



Since this new unit has opened, I have performed every radical prostatectomy in my practice there. There is no question that recovery is more seamless and the patients and their families are happier. With the benefits of this patient- and family-centered approach so obvious, why haven’t we been doing this all along? Part of the reason is tradition: doctors, nurses and hospitals are comfortable with things the way they are—even if the patients and their families aren’t. Changing the existing paradigms requires a progressive and forward-thinking administration, a mind-set that permeates UPMC. The other challenge to providing care in this fashion is variability: the patient must experience roughly the same operation to have the same pre- and post-operative experience. Fortunately, the enemy of the unexpected is routine, and doing up to seven radical prostatectomies every week helps to limit surprises.

I’m just as proud of this new unit as the high-powered science you’ll read about in this third issue of *ForeFront*. As I wrote these stories I was struck by our growing commitment to be the best for our patients, whether it is in the laboratory, in clinical research or at the time of surgery. I hope you enjoy reading about our work. Thank you for your interest and support.

JOEL NELSON

FEATURING

Catching Prostate Cancer: Role of Infection in the Disease

PAGE 2



Limiting the Side Effects of Hormone Therapy

PAGE 3

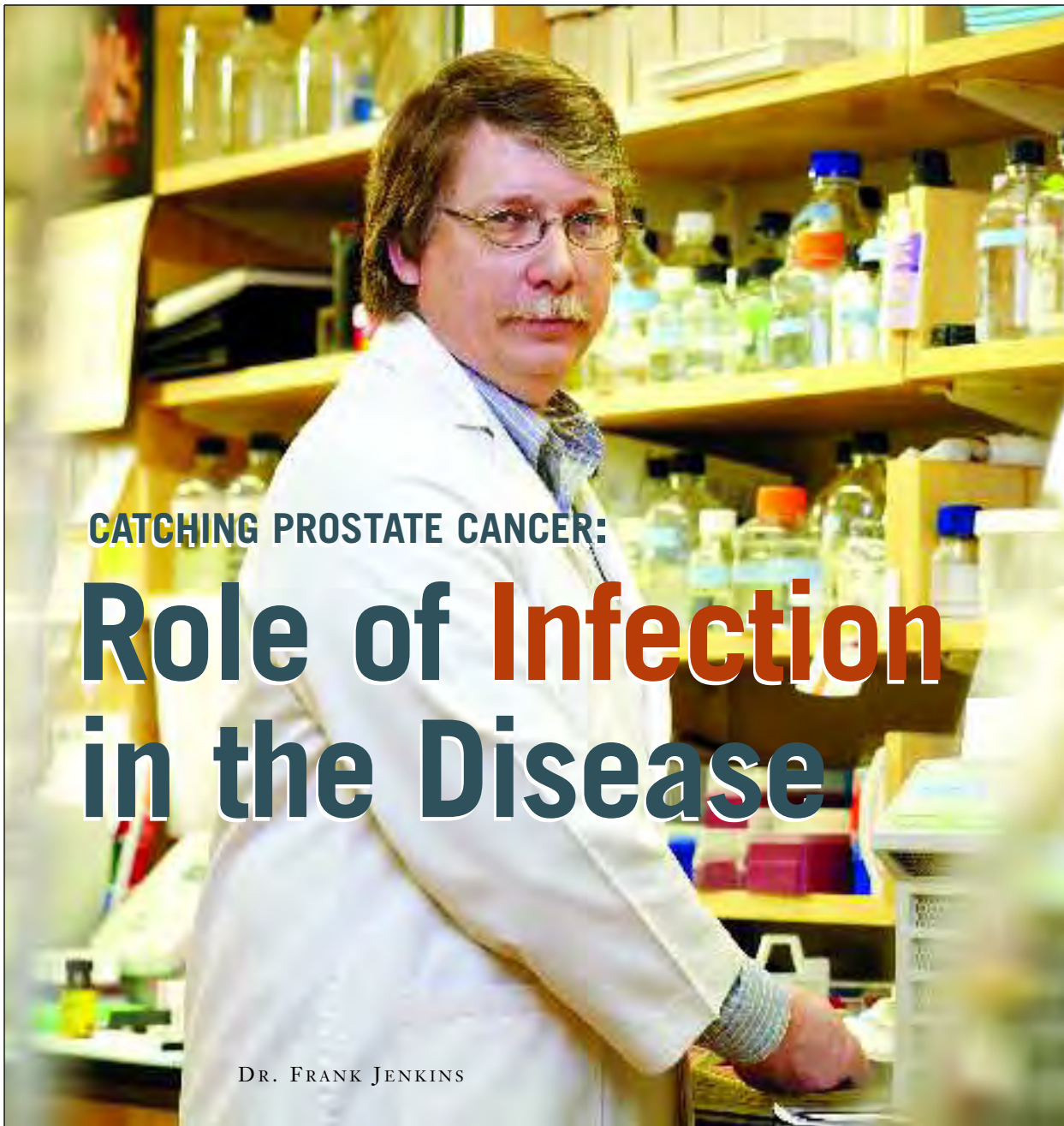
Prostate Cancer in Paradise

PAGE 4



Helping Hands

PAGE 8



CATCHING PROSTATE CANCER:

Role of Infection in the Disease

DR. FRANK JENKINS

A typical first encounter with a man with prostate cancer often goes like this:

PHYSICIAN: "So, I see from your chart you've been found to have prostate cancer."

PATIENT: "That's what they tell me."

PHYSICIAN: "You don't believe them?"

PATIENT: "Well, I feel fine. It's just so hard to believe."

Men newly diagnosed with prostate cancer don't look sick, don't feel sick, and except for giving up a few slivers of prostate tissue at the time of biopsy, they are completely intact. As part of the initial shock of being told, men may wonder where they got prostate cancer, like it is something they caught. *Maybe if I washed my hands better after using a public bathroom...Why did I share all those beers in college...What if I hadn't been so active sexually?* Men are often relieved to be told there is no way they can transmit prostate cancer to someone else.

Certain cancers are clearly linked to an infectious etiology, such as liver cancer with viral hepatitis and cervical cancer with human papillomavirus. An infectious basis for prostate cancer has long been proposed, but no single bacteria or virus has been identified to explain the disease. An acquired form of prostate cancer, much like catching a cold, had fallen from scientific vogue until a series of recent observations rekindled this

line of investigation. The defective inherited genes (those one is born with) found in men with higher rates of prostate cancer have a common characteristic: their relationship to the body's ability to respond appropriately to an infection. For example, a small group of men with prostate cancer is born with a mutation in a particular gene (MSR-1) responsible for the function of macrophages, a normal immune-system cell. Another defect is in a gene responsible for dealing with viral infections, known as RNASEL. The chronic inflammation associated with a smoldering infection has been widely recognized as a critical factor in the development of a host of cancers.

Although these particular genetic defects in immune function are quite rare, scientists are beginning to examine more common infectious agents for a role in developing prostate cancer. Dr. Frank Jenkins, a virologist at the University of Pittsburgh, has been studying HHV-8, a member of the herpes family of viruses—responsible for infections

ranging from cold sores to chicken pox to shingles—as one such possible agent. Taking advantage of the natural tendency for humans to form antibodies after becoming exposed to a foreign agent, Dr. Jenkins found that men with advanced prostate cancer had twice the rate of antibodies to HHV-8 as the normal population. Working with Dr. Clare Bunker, he also found the rates of HHV-8 exposures to be much higher in men on the island of Tobago with prostate cancer compared to men without the disease.

There are several characteristics about HHV-8 that make it an intriguing suspect in the prostate cancer story. Anyone who had chicken pox as a kid, only to get shingles many decades later, can attest to the fact that herpes viruses can establish long, latent infections. If chronic infection and inflammation promote prostate cancer, this virus fits the bill. HHV-8 has already been associated with another cancer, relatively unknown until the emergence of AIDS, called Kaposi's sarcoma. Interleukin-6, a normal protein produced by the immune system in response to stress, is produced by HHV-8, potentially mimicking the chronic inflammation even in the absence of an immune response. Prostate cancers can respond directly to interleukin-6, which promotes a variety of functions including cancer growth. Finally, a specific genetic defect associated with RNASEL mutation is an inability to deal with viruses like those in the herpes family.

If HHV-8 is shown to promote prostate cancer, the obvious question is how can one avoid it? Unfortunately, as is the case with other herpes viruses, these are widespread and exposure can begin in childhood. Vaccination is, however, possible. What about men who are already exposed? This is where Dr. Jenkin's work may be most important. By looking at men who have antibodies to HHV-8 and other genetic susceptibility factors, Dr. Jenkins may be able to identify those men who are at greatest risk for developing prostate cancer, well before any PSA testing or digital rectal exam may pick it up. Knowing who could develop prostate cancer when they still feel fine may support more intensive evaluation, use of earlier chemoprevention strategies and focused counseling.

The efforts of Dr. Jenkins and his colleagues offer a good example of the benefits of critical mass. It has only been through the collaborative efforts of Dr. Clare Bunker, studying prostate cancer in Tobago, Dr. Rajiv Dhir, providing tissues and serum from the prostate tissue bank for HHV-8 evaluation, and through support from the Campaign for the Department of Urology Research, that this important work can be done. **F**

The response of prostate cancer to hormone therapy or, more precisely, androgen deprivation therapy (ADT) is one of the most reproducible, durable and profound of any systemic therapy for a solid tumor. Exploiting the sensitivity of the male sex accessory organs to the male hormone testosterone, ADT has been the cornerstone of advanced prostate cancer treatment since 1941, when the urologist Charles Huggins won the Nobel Prize for this discovery. Working at the University of Chicago, Huggins described a “noticeable improvement” occurred in 18 of 21 men treated with orchiectomy. He also noted some of the consequences of this form of therapy, including a large appetite for food, loss of sexual desire and penile erections, hot flashes and weight gain.

Prior to the introduction of long-term forms of chemical castration, such as the depot injections of drugs like Lupron® and Zoladex®, ADT was limited largely to surgical castration or estrogens—each of which had their own additional side effects. As a consequence, historically ADT was usually applied in the late stages of the disease. The emergence of the more convenient injectable forms of ADT, coupled with the advent of prostate-specific antigen (PSA) to monitor the progression of prostate cancer in men with no other signs of disease, led physicians to use hormone therapy much earlier in the course of the disease. Although there is evidence that this earlier use of ADT may be beneficial in delaying prostate cancer progression, the side effects of such a therapy must be endured longer.

As people age, men and—more significantly—women lose bone mass. In the earlier stages, loss of bone mass is called osteopenia; in the later stages, it is called osteoporosis. The reason why the elderly have significantly higher rates of skeletal fractures is not because they play contact sports or jump out of airplanes (excluding the former President Bush) but because their bones have become fragile. Among the risk factors for this process, which include smoking, inactivity, diet and gender, are reduced sex steroids, such as estrogen in women and testosterone in men. Therefore, it should not be surprising that loss of bone mass is a known complication of ADT, where a significant reduction in testosterone is precisely the goal of therapy.

Far from the inert structures populating museums and Halloween shops, the skeleton is a dynamic structure, remodeling itself continually throughout life. The problem with loss of bone mass is that, short of a fracture, people don’t know that it is happening. Obviously, prevention or treatment

DR. SUSAN GREENSPAN



No Bones About It:

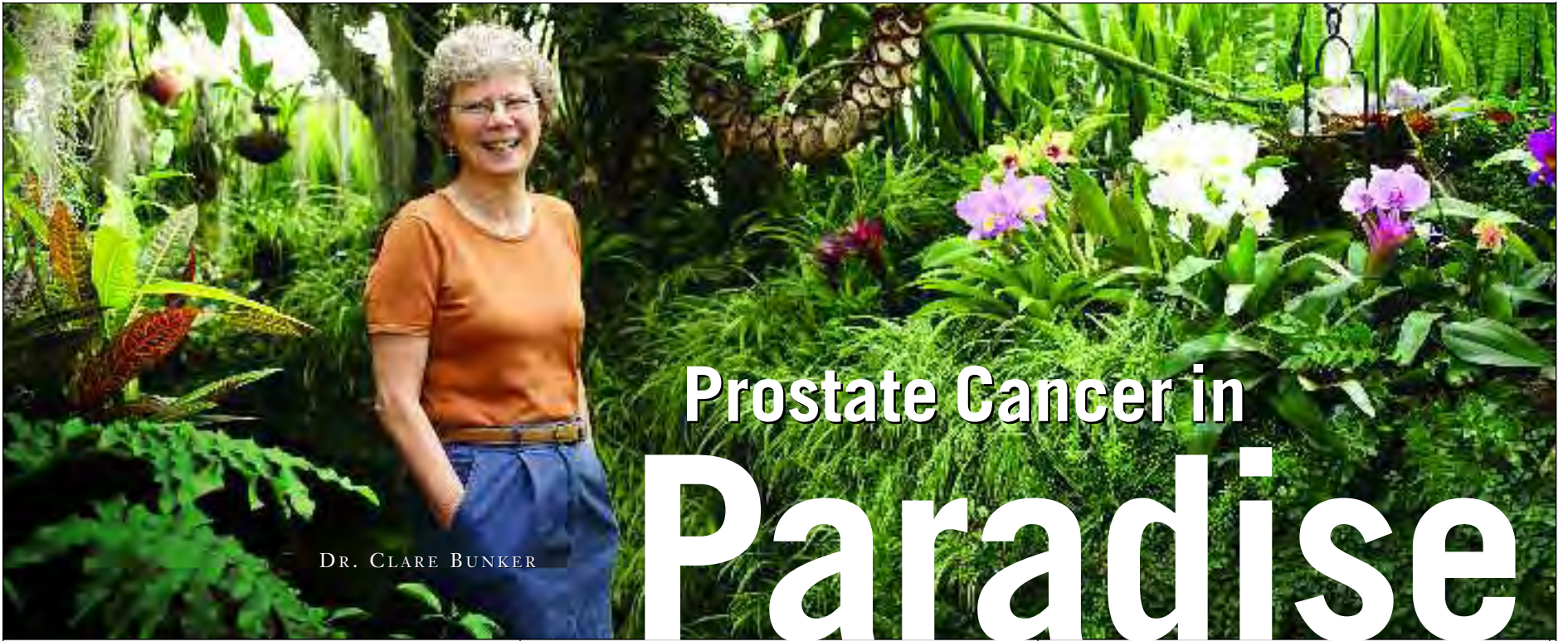
LIMITING THE SIDE EFFECTS of Hormone Therapy

of osteopenia and osteoporosis must begin with recognition. Fortunately, there are a number of radiographic and laboratory tests that can measure bone density and bone remodeling, respectively. Applying these tests to men with prostate cancer on ADT, Dr. Susan Greenspan and her colleagues have made several seminal observations about the nature of bone loss in this population. Many of the men in Dr. Greenspan’s studies have come from the UPMC Department of Urology.

First, comparing men who are just beginning ADT to those men who have been on it for a longer period of time, Dr. Greenspan has found that the loss of bone mass is greatest in the first six months of ADT. Indeed, Dr. Greenspan has found that a majority of men on ADT have either osteopenia or osteoporosis. But unlike the inevitability of aging, loss of bone mass can be halted and, sometimes, reversed: potent drugs, known as bisphosphonates, inhibit the cells responsible for breaking down bone mass, allowing the cells responsible for making new bone to catch up or even take the lead.

In a carefully designed and conducted clinical trial, Dr. Greenspan made a second important finding: an oral bisphosphonate called alendronate (Fosamax®) given just once per week increased bone mass compared to men on a placebo. Designed to be a two-year study, the benefits of alendronate therapy were so profound that Dr. Greenspan stopped the study at one year to provide everyone with the medication. “Since most men remain on androgen deprivation therapy indefinitely,” said Dr. Greenspan, “it is important to assess bone mass and consider measures to prevent bone loss.”

The UPMC Department of Urology, and our patients here and around the world with prostate cancer, are clearly benefiting from the productive relationship we have developed with Dr. Greenspan and her colleagues. More importantly, it is the willingness of men with prostate cancer on ADT to participate in clinical trials that makes all this work possible. Although contributors of a different currency, their generosity is just as valuable to our research efforts. **F**



DR. CLARE BUNKER

Prostate Cancer in Paradise

Beyond the absolute gender risk factor of prostate cancer, the risks of race, age and family history are quite relative. For example, although a genetic risk is assumed if one's father was diagnosed with prostate cancer in their 40s, in the majority of cases there is not such an obvious predisposition. There are several challenges in determining clear risk factors in prostate cancer. First, the disease is very common: one man in six in the United States will be diagnosed with the disease. If there is an environmental component to prostate cancer, it must be so pervasive that it is essentially indistinguishable from everything else. Unlike lung cancer, there is no "smoking" gun. Second, we live in a true melting pot: in a world of genetic and national pedigrees, most American men are mutts. The higher rates of prostate cancer found in certain races do not explain the majority of cases. Third, we live in a highly mobile society. If there is something in the water or soil, it will be difficult to trace when the lettuce comes from California, the ground beef from 1,000 different cattle, and the water from a bottle. Regional differences in prostate cancer are more likely due to the intensity of screening than to anything else.

To address the question of "why prostate cancer", scientists try to study populations where genetic and environment variability is minimized. The ideal population would be genetically pure, be exposed to roughly the same things and remain relatively stationary. From a geographic perspective, a small, relatively underdeveloped and isolated island would be a good place to find such a population. It would be even more desirable to find higher rates of prostate cancer in that population, a hot bed of disease. Finally, the population would need to be small enough to find all the cases with and—more importantly—without prostate cancer.

Obviously, the 100% maleness of prostate cancer results from knowing women never get it.

If this world has an ideal population to study with prostate cancer, then Dr. Clare Bunker, Assistant Professor of Epidemiology in the School of Public Health, has found it. The small island of Tobago is among the least developed of the Caribbean countries, has a 95% African genetic background and has very little in or out migration. Frankly, as a piece of paradise why leave? The at-risk male population is large enough to be informative but not so large as to be unwieldy. Through Dr. Bunker's and her colleagues'

"...the rates of prostate cancer in this population are the highest in the world, the hottest of any hot bed."

efforts, 3,081 of the 5,121 men aged 40–79 on the island of Tobago have been screened for prostate cancer, roughly 60% of that population. And the rates of prostate cancer in this population are the highest in the world, the hottest of any hot bed: the prevalence of screening-detected prostate cancer is three-fold higher among Tobago men of African descent compared to Caucasian men in the United States. This allows one to ask discrete questions about prostate cancer etiology and to study chemopreventive strategies.

Discovering that the men in Tobago have the highest rates of prostate cancer in the world is a mixed blessing. While meaningful intervention begins with early diagnosis,

shattering the bliss of ignorance is not always desirable. Furthermore, working in an economically challenged former British colony requires a combination of refined diplomacy and pragmatic grit. Very gifted in her own right, Dr. Bunker also collaborates with a team of local physicians who help navigate the local political and cultural landscape. Beyond prostate cancer screening, this group has initiated a number of prostate cancer-related studies. For example, the role of lycopene, the antioxidant pigment in tomatoes, is being investigated as a prostate cancer chemopreventive agent. Bone density studies, using a sophisticated DEXA-scanner, have shown that men in Tobago have significantly thicker bones than men in the United States, probably due as much to a physically active lifestyle as to genetics.

The prostate cancer effort on Tobago has moved from observation to intervention. Dr. Bunker has orchestrated a program of radical prostatectomies performed in the only operating room on the island. Teams of surgeons and support staff from the University of Pittsburgh Department of Urology have repeatedly traveled to Tobago to operate on men with clinically localized prostate cancer. Beyond the curative benefits of surgery, the prostates are shipped to Pittsburgh as a unique resource in the tissue bank for basic molecular and protein analysis.

This important work has been repeatedly funded by the National Institutes of Health, but conducting many of the ancillary and exploratory studies requires Dr. Bunker to scramble. This work has been supported, in part, through the generous gifts of those contributing to the Campaign for the Department of Urology Research Fund. Beyond the obvious humanitarian benefits of such a program, this work will yield useful information to answer the "why prostate cancer" question. **F**

A portrait of Dr. Rajiv Dhir, a man with a mustache wearing a light blue shirt and a dark tie, sitting at a desk. In the background, there are blurred office lights and a sign that reads "PATHOLOGY OF DISEASE".

DR. RAJIV DHIR

BANKING

on Cancer to Understand Its Behavior

Cancer, by nature, doesn't follow the rules: cellular growth is out of control, tumors spread to other locations in the body and remain resistant to therapies that kill normal cells. While this delinquency challenges patients and physicians, certain characteristics are used to classify and predict how the cancer will behave. Just as the repeat arsonist is likely to start another fire, tumors of a particular cell type will reliably settle in particular locations. The two most widely used systems to characterize cancer are stage (the size and extent of a cancer) and grade (the appearance of the cancer under the microscope). Small local tumors comprised of cells closely resembling normal tissues, or well-differentiated, have a favorable prognosis, whereas extensive tumors populated by bizarre cells have a poor prognosis. Adding other clinical characteristics, such as the PSA level in prostate cancer, allows one to make even better predictions about the likelihood of cure and/or recurrence.

After considering the stages, grades and clinical characteristics of a large number of patients, tables and computer programs have been created to help physicians decide which

treatment would be best. These predictive tools, called nomograms, are remarkably similar to the information used by odds-makers at the horse track: the bloodline, jockey, turf conditions, and previous starts are considered to rank horses from long shot to favorite. In general, the more information one can consider, the more chance can be minimized. For example, knowing that a cancer lacks the ability to metastasize will change the approach to local treatment and follow-up. It is not simply a matter of more information, however, but the right information: although the length of a horse's tail can be measured very precisely, this is not predictive of crossing the finish line in any particular order.

To understand the behavior of cancer, physicians have relied on well-established criteria, such as stage and grade, but more of the right information is clearly needed. At the University of Pittsburgh Urological Cancer Research Laboratories, a comprehensive bank of human tissues is at the core of this effort. Under the leadership of Dr. Rajiv Dhir, thousands of tissue samples are collected, correlated with clinical

information and stored for subsequent study. For example, in patients who have suffered catastrophic brain injuries and whose families are donating their organs, Dr. Dhir has established a program where genitourinary organs—such as the prostate and bladder—are also harvested for scientific study. In order to understand disease states like cancer, one must be able to compare it to “normal” tissues like those taken from otherwise healthy individuals. Likewise, nearly everyone who undergoes a radical prostatectomy by surgeons of the Department of Urology has their prostates microdissected and part of the specimen stored in the tissue bank. Blood and urine are also collected and stored, to be used as the first test set for any new candidate cancer marker.

A search for new factors to better understand the behavior of cancer usually begins with the tissues themselves. The standard processing of the tissues for pathological review, including fixation in formalin and embedding in paraffin, denature many of the possible genetic and protein factors. To maintain the maximal usefulness of these tissues, Dr. Dhir flash freezes and stores many of them in liquid nitrogen at -170°C . Linking the clinical characteristics of the patient with their tissues is a particularly powerful tool; after the patient provides consent, knowing what happened to the patient after treatment is even more valuable. Just as wine improves with age, so too does the value of a harvested tissue. For example, knowing which patients never recurred is like knowing which horse won the race. Patient cooperation through adherence to the regular, long-term follow-up this requires is a crucial part of this research effort.

Unlike a commercial bank, there is no margin between deposits and loans that funds tissue banks. The processing of tissues, storage and maintenance of clinical information are labor intensive and, as the bank grows and matures, it becomes even more expensive to run. To allow the investigators in our research programs to have unfettered access to these valuable samples, support from the Campaign for the Department of Urology is used to help fund the tissue bank. One manifestation of this support is a “tissue teller”, a technician who helps retrieve the right sample's clinical information for the investigators. It is the willingness of our patients to donate their tissues and adhere to long-term follow-up coupled with—in many cases the same—grateful patients who financially support our research programs that is allowing us to better understand and treat cancer. **F**

Changing the Art of Medicine into the Science of Medicine



CLINICAL RESEARCH TEAM

In medicine, a lot of what passes as good clinical practice is done even when there is not enough science to prove that the practice is, in fact, good. Referred to as the “art of medicine”, physicians will adopt a particular practice, assuming the benefits are obvious without formally testing the efficacy of the treatment. This is not done with an ignorant intent: in the rush to improve the outcomes of patients, physicians will follow promising leads and try something new if they believe it may help and wait for the science to catch up. For example, only after decades of doing radical prostatectomies for prostate cancer was this practice shown, in a scientifically rigorous fashion, to improve prostate cancer-specific and overall survival.

There is a risk, however, that belief in the helpfulness of a treatment will be increasingly based on emotion or isolated positive experiences, and the desire to put the practice to an objective test will be resisted. Competing forces, such as financial gain, may make objective testing even more difficult: if even half of the claims made by vitamin manufacturers were true, most physicians would be unemployed. Occasionally patients don’t want to know if the benefits of a particular therapy have been scientifically demonstrated, a sentiment that falls into the “it can’t hurt” line of reasoning.

The practice of medicine — balancing its science and its art — will only improve when physicians and patients require a systematic, scientific analysis of what

physicians do. In the case of what physicians *want* to do, such as a new device or drug, the Food and Drug Administration (FDA) has distinct requirements before it can be approved. The FDA is under siege, in part, because this process is inherently more deliberate than some physicians and patients think is necessary, yet at the same time calls for increased safety around.

Moving medicine from the well-trodden paths of empiricism to a scientific basis is

The intensity of clinical research requires that these individuals are almost always entirely focused on their research.

largely the task of clinical research — an active effort in the Department of Urology. Since one of the goals of clinical research is to answer scientific questions, it is not business as usual, even if it parallels regular clinical practice. Laboratory and radiographic testing is more intense and regimented. Questionnaires, surveys and interviews are more expansive. The voluntary nature of patient involvement requires formal informed consent processes and rigorous oversight of any adverse event. In brief,

the entire effort attempts to make sense out of the mess of human disease.

In the UPMC Department of Urology Research program, we have many active clinical trials, managed by a dedicated team of clinical research coordinators, nurses and data managers. The intensity of clinical research requires that these individuals are almost always entirely focused on their research. Patients in clinical trials become quickly aware of the kid-glove treatment by members of the team. Office visits are usually spent doing something rather than waiting for something to happen. A great deal of oversight can fill several consecutive days as independent auditors and study monitors go through each document in fine detail: dotting each i and crossing each t is the standard.

As is the case with most scientific research, clinical investigation is done to answer a question — not to make money. Although many clinical trials performed in the UPMC Department of Urology are sponsored by a particular pharmaceutical company or device manufacturer — and in one case by the maker of Gatorade (“does being like Mike also reduce kidney stone formation?”) — at best, clinical research is a break-even proposition. The support generated through the Campaign for the Department of Urology helps to underwrite this important effort. Beyond the money, it is the commitment of patients choosing to enroll in these trials, generous with their time and their bodies, that gives us confidence that in medicine, tomorrow will be brighter than today. **F**

Directed Serendipity: The Full Circle of

Innovative Research

“Chance favors the prepared mind.”

This quote, attributed to Louis Pasteur, the French microbiologist (1822–1895) who also gave us pasteurization, has been repeatedly demonstrated in science. Paying attention to seemingly unrelated details is often the place of discovery. For example, only when some men taking an experimental new drug for controlling blood pressure reported they were seeing an improvement in their penile erections did the scientists at Pfizer realize sildenafil, better known as Viagra, could be used for a completely different indication. In a related fashion, the reason the second head is better than the first is because it is a different head: professional consultants often do little more than look at a problem from another perspective and, frankly, provide the other half of the solution.

In the Department of Urology Research Laboratories, we have quite deliberately used chance observations and other points of view to fuel the discovery engine. All of our laboratories have been physically designed to force the investigators to interact, whether at the bench or at lunch, and to talk about unexpected findings and seek out others’ perspectives. With the common denominators of curiosity, interest and intelligence, the young scientists in the Department usually end the day with more questions and ideas than they had at breakfast. One way to facilitate this process of directed serendipity is to apply experimental techniques and approaches to a completely different set of problems.

The early career of Dr. Fernando de Miguel, Assistant Professor of Urology, is a great example of the success of this approach to solving fundamental questions in urology. After receiving his Ph.D. in biochemistry and molecular biology at the Complutense University, in Madrid, Spain, Dr. de Miguel did post-doctoral fellowships in endocrinology and prostate cancer biology at the University of Pittsburgh. Working in the Department of Urology Cancer Research Laboratories, Dr. de Miguel demonstrated an important pathway for autonomous prostate cancer growth—the very behavior that describes malignancy. While still very



“One way to facilitate this process...is to apply experimental techniques and approaches to a completely different set of problems.”

interested in questions related to cancer, Dr. de Miguel was asked to consider the diseases of the bladder by Dr. Michael Chancellor, Director of the Neurourology Research Laboratories. Why, for example, do some bladders become so overactive?

Classically viewed as a simple muscular sac for storing urine, most of the studies regarding bladder function and dysfunction have focused on nerve control and the bladder muscle response, leaving the thin lining of the bladder, known as the urothelium, as nothing more than a simple barrier protecting the muscle from the urine. Since most cancers in the body arise from these lining cells, Dr. de Miguel had a natural predisposition to consider the urothelium as important: the prepared mind was rolling the dice.

It is now known that these urothelial cells express many sensors on their surface, known as membrane receptors, and these may dictate how the bladder responds to particular stimuli. For example, Dr. de Miguel and his colleagues were the first to show that the bladder lining expresses the receptors for temperature, accounting for the widely recognized contraction response of the bladder to cold. He is studying cannabinoid receptors in these cells (yes, these are the receptors responsible for, among other things, the response to marijuana) because of their mediation of pain relief, a serious problem in certain bladder conditions, like interstitial cystitis. By applying the tools of molecular biology to bladder function, Dr. de Miguel is rapidly expanding our understanding of how the bladder works.

Using one such tool, known as proteomics, or looking systematically at patterns of protein expression, Dr. de Miguel is accelerating our efforts in interstitial cystitis. That painful and chronic bladder condition, described in the last issue of *ForeFront*, is a diagnosis of exclusion: once the urologist has eliminated all the other causes for the condition—an often lengthy and inexact exercise—it is concluded the patient has interstitial cystitis. By looking at patterns of protein expression in the urine and bladders from those with interstitial cystitis, Dr. de Miguel hopes to develop simple tests to make the diagnosis quickly and accurately, as well as new methods for monitoring the response to therapy.

Among the benefits of these journeys into new areas of investigation is that one returns to the original set of questions with a new, second perspective. Dr. de Miguel has begun to identify promising leads in understanding bladder cancer through examining the characteristics of normal cells that could become altered in malignancy. The Campaign for the Department of Urology Research Laboratories allows us to support a preliminary investigation of these leads as our research goes full circle. **F**

Helping Hands

“...we want to make sure that there is a strong medical community in Pittsburgh with state-of-the-art facilities...”

When he was a child, Ron Rosen liked to read the financial pages. Investments and finance fascinated him, even before he was quite old enough to grasp all the subtleties involved. Now, after 37 years as a broker, the last 30 with UBS Financial Services in Pittsburgh, the subtleties are crystal clear. But Ron and his wife, interior designer Susan Rosen, still see the big picture, especially when it comes to philanthropy.

Among their more recent charitable gifts is a bequest to the University of Pittsburgh Medical Center Department of Urology. By providing for the Department of Urology through a bequest in their wills, the Rosens have utilized a gift planning vehicle that suits their own and their family's needs. Gifts planned now to be given in the future have allowed them to create a legacy of giving for their family. *(Please see the article below for more information on gift planning options).*



Their reasons for giving to the Department are highly personal, Ron explains. “We have been in Pittsburgh all our lives, our friends and families are here and we want to make sure that there is a strong medical community in Pittsburgh with state-of-the-art facilities,” he says. Ron and Susan have both had health

problems recently, and they relied heavily and confidently on the medical care that they received at UPMC as they recovered. Ron has also been a patient of Dr. Joel Nelson's and has referred three friends to him as well. “I know Dr. Nelson saved one friend's life,” Ron says.

“Ron was the one who started giving to charities,” Susan recalls, but after she had her own health problems, she also began thinking about giving back to the community. “Ron taught me a lot about giving,” she says. “He taught me that if you ever need a helping hand, you'll find one at the end of your arm. As we grow older, you discover that you have two hands — one for helping yourself and one for helping others.”

Their commitment to giving back is a Rosen family tradition. They have a daughter-in-law whose mother started a mission in Africa, and family members have “adopted” several children they financially support through this program. “It's refreshing to think that we can help so many people,” Ron says. Ron and Susan also have five little granddaughters, all age two and under, so there is still plenty of opportunity to pass along their view of the big picture to yet another generation. **F**

Giving to the charity of your choice can be a smart financial move. Although giving is, at heart, a philanthropic endeavor, it can also be part of your tax planning, providing you and your family with various tax incentives and other financial benefits.

A planned gift is a way you can help to build the foundation for the Department of Urology's long-term development while receiving personal financial benefits. Planning ahead enables you to control what happens to your assets. You can provide for your loved ones and make charitable contributions, often larger than you might have thought.

When someone first thinks about a planned gift, he or she may consider a bequest for the benefit of the Department of Urology. The donor can consult with the charitable organization for language that will be useful to indicate a specific purpose for the use of the bequest.

There are also a number of ways that someone with philanthropic intent can leave

a personal legacy while providing for self and/or loved ones. The following are a few examples:

Charitable Gift Annuities

A gift annuity is a simple contract between you and the University of Pittsburgh to benefit the Department of Urology. It offers fixed payments for your life or for the lives of you and a loved one. Part of your annuity payments may be tax free. Also, with a charitable gift annuity, you receive an immediate charitable income tax deduction. The minimum donation to create a gift annuity is \$10,000. Please contact us to learn about our competitive rates.

Charitable Remainder Trust

A charitable remainder trust (CRT) is a life income gift. You can transfer assets — from a variety of sources — to a trustee and receive a charitable income tax deduction for a portion of the transfer. In addition, you and/or a beneficiary can receive income for the remainder of your lives or for a fixed period of time. The amount remaining in the trust when you are no longer receiving income

belongs to the Department of Urology. You can also establish a testamentary CRT through your will or estate plan.

Remainder Interest in a Personal Residence

A remainder interest in a personal residence means that you can give your residence or farm to the Department of Urology and retain the right to occupy the property for your lifetime (and that of your surviving beneficiary). You receive a current charitable income tax deduction for the present value of the Department of Urology's remainder interest.

Personal decisions concerning tax-beneficial philanthropy are complex. You should consult with an attorney, accountant, or financial planner for advice on these matters.

To make a contribution please contact:

Marian J. Weil, University of Pittsburgh / UPMC Medical and Health Sciences Foundation, 3708 Fifth Avenue, Suite 400, Pittsburgh, PA 15213, or call (412) 647-4276. Email: wmarian@pmhsf.org

Please write to us at UPMC Development, 3708 Fifth Ave., Suite 400, Pittsburgh, PA 15213 if you wish to have your name removed from the list to receive future fundraising requests supporting the Department of Urology.



UPMC
University of Pittsburgh
Medical Center