

#### INSIDE THIS ISSUE

- Prostate Cancer Awareness Month
- Medicare CAP Delayed
- FDA's ODAC to Review NDA for Xinlay
- Xinlay Expanded Access Program Announced
- Baby Boomers Confront Prostate Cancer
- PSA Changes Over Time Predict Risk
- Prostate Cancer Survey Still Open
- New Advanced Prostate Cancer Publication
- Understanding Your Pathology Report
- High Intensity Focused Ultrasound (HIFU)
- Us TOO Approved For Year 3 Minority and Underserved Outreach Program
- Hormone Therapy Plus Vaccine Active Against Refractory Prostate Cancer
- Probe for Early Prostate Cancer Detection
- Racial Variation in Gene Hypermethylation
- Provenge Helps Patients with HRPC



**Us TOO**<sup>®</sup>  
PROSTATE CANCER  
EDUCATION & SUPPORT

# HOTSHEET

## September 2005

### SEPTEMBER OFFICIALLY BECOMES PROSTATE CANCER AWARENESS MONTH

#### COMMEMORATING PROSTATE CANCER AWARENESS MONTH

On Friday, July 29, the U.S. Senate unanimously adopted a resolution (SR 230) proclaiming September as National Prostate Cancer Awareness Month. In each of the preceding 5 years, the U.S. Senate has issued a 1-year resolution and the President has declared the month of September as Prostate Cancer Awareness Month. Now that this year's Senate has passed the initiative, September will always be known as National Prostate Cancer Awareness Month.

Us TOO will be involved in a number of special programs during this month. During the weekend of September 17 and 18, our supporters are organizing the Greater Chicago-area Run, Walk 'n Roll event for Us TOO and the Wellness Place. Information on the symposium featuring Dr. Charles "Snuffy" Myers, Dr. Brian Moran and Dr. Charles Brendler, the recognition dinner and the race is on the Us TOO webpage now, so please register early.

We are also pleased to announce we will be doing a Webcast and Teleconference with HealthTalk on September 22 entitled "Prostate Cancer Care: Past, Present and Future." In addition, Us TOO will be holding a telephone education workshop on September 28 with CancerCare titled "Spouses and Partners: Your Important Role in Decision Making in the Treatment of Prostate Cancer." Look for more activities and screening events in your local area. Many Us TOO chapters and hospitals have events scheduled, so we invite you to participate and show your support for the cause!

Prostate Cancer Awareness Month can serve as an easy way for men to remember to have their annual PSA and digital rectal examination done. Under the new NCCN guidelines for early prostate cancer detection, every man is encouraged to establish his own "personal" baseline PSA at age 40 and re-check his PSA level on a calendar basis. For more information, please read the Us TOO recommendations on our webpage under the Early Detection button.

#### MEDICARE COMPETITIVE ACQUISITION PROGRAM DELAYED

In the August *HotSheet*, you may have noticed, we provided information about the Medicare Competitive Acquisition Program's Interim Final Rule and outlined our concerns relating to patient access to medications. Shortly after we released the *Hot-Sheets*, on August 3, the Centers for Medicare and Medicaid Services (CMS) issued a notification stating that the program will be delayed.

CMS decided to delay this program in order to better review public comments and improve the efficiency and attractiveness of the program to vendors. A final rule will be published late 2005.

Us TOO will continue to monitor this program as it progresses. We will move forward with our plans to publish resources such as "CAP Frequently Asked Questions" and discussion points to aid you in your conversation with your doctor once the final rule is published.

**US TOO PUBLICATIONS**

In addition to the *HotSheet*, Us TOO offers a FREE e-mail based service called *NEWS You Can Use* sponsored by Sanofi-Aventis, providing updates on the latest prostate cancer related news. To subscribe or link to the archives, simply visit the Us TOO website [www.ustoo.org](http://www.ustoo.org).

Items contained in Us TOO publications are obtained from various news sources and edited for inclusion. Where available, a point-of-contact is provided.

References to persons, companies, products or services are provided for information only and are not endorsements. Readers should conduct their own research into any person, company, product or service and consult with loved ones and personal physician before deciding on any course of action.

**FDA ONCOLOGIC DRUGS ADVISORY COMMITTEE TO DISCUSS NEW DRUG APPLICATION FOR XINLAY**

On September 13, 2005, the FDA Oncologic Drugs Advisory Committee will discuss the new drug application (NDA) 21-491 of Abbott Laboratories' proposed trade name XINLAY (atrasentan hydrochloride) Capsules for the proposed indication for the treatment of men with metastatic hormone-refractory prostate cancer. This is an open public hearing, which will be held in The Ballrooms at the Holiday Inn, located at 8120 Wisconsin Avenue, in Bethesda, MD.

Interested persons may present data, information, or views, orally or in writing, on this and any other issues pending before the committee. Written submissions may be made to the contact person by **September 2, 2005**. Oral presentations from the public will be scheduled between approximately 10:30 a.m. to 11 a.m., and 2:30 p.m. to 3 p.m. on both days. Time allotted for each presentation may be limited.

Those desiring to make formal oral presentations should notify the

contact person before **September 2, 2005**, and submit a brief statement of the general nature of the evidence or arguments they wish to present, the names and addresses of proposed participants, and an indication of the approximate time requested to make their presentation. Persons attending FDA's advisory committee meetings are advised that the agency is not responsible for providing access to electrical outlets.

FDA welcomes the attendance of the public at its advisory committee meetings and will make every effort to accommodate persons with physical disabilities or special needs. If you require special accommodations due to a disability, please contact Johanna Clifford by phone at (301) 827-7001, or by E-mail at [clifordj@cder.fda.gov](mailto:clifordj@cder.fda.gov), at least 7 days in advance of the meeting.

Us TOO encourages your involvement and attendance, let's make our voices heard about the need for more options for advanced disease!

**XINLAY™ EXPANDED ACCESS PROGRAM ANNOUNCED**

Here is more information regarding what was presented about this topic in the August *HotSheet*. Abbott Laboratories has received U.S. Food and Drug Administration (FDA) permission to initiate an expanded access program for the investigational agent known as Xinlay™ (atrasentan) in the U.S. for eligible men with late-stage, hormone-refractory prostate cancer. The study will begin later this summer.

Expanded access programs are designed to make investigational agents available at the earliest opportunity for the treatment of serious diseases for which no comparable or satisfactory alternative drug or other therapy is available.

For the thousands of patients whose prostate cancer spreads to other organs, the disease remains incurable. The cancer in hormone-refractory prostate cancer patients often spreads to their bones and patients are left with few treatment options. Bone pain from metastases is one of the more disabling manifestations of advanced prostate cancer.

Xinlay is an investigational, oral, once-daily, non-hormonal, non-chemotherapy, agent that belongs to a class of compounds known as selective endothelin-A receptor antagonists (SERA™). SERAs disturb the effect of endothelin -1 (ET-1), one of the proteins thought to be involved in the stimulation of the spread of cancer cells.

Xinlay is currently being studied in several stages of prostate cancer. Speak to your treating physician to see if you are eligible to participate in the Xinlay Expanded Access Program study. Your physician may call 1-866-4ABTONC for more information about patient enrollment criteria.

THE US TOO PROSTATE CANCER *HOT SHEET* IS MADE POSSIBLE BY A CHARITABLE CONTRIBUTION FROM



THE INFORMATION AND OPINIONS EXPRESSED IN THIS PUBLICATION ARE NOT RECOMMENDATIONS FOR ANY MEDICAL TREATMENT, PRODUCT SERVICE OR COURSE OF ACTION BY US TOO INTERNATIONAL, INC., ITS OFFICERS AND DIRECTORS, OR THE EDITORS OF THIS PUBLICATION. FOR MEDICAL, LEGAL OR OTHER ADVICE, PLEASE CONSULT PROFESSIONAL(S) OF YOUR CHOICE.

**US TOO HEADQUARTERS STAFF:**  
 THOMAS N. KIRK, PRESIDENT AND CEO  
 PAMELA BARRETT, DEVELOPMENT DIRECTOR  
 JAQUELINE KONIECZKA, OFFICE ASSISTANT  
 TERRI GIBBONS, ADMINISTRATIVE ASSISTANT  
 EUGENE WHEELER, UNDERSERVED PROGRAM DIRECTOR  
 KAREN BACHER, PROGRAM DIRECTOR  
 ELIZABETH CABALKA, PROGRAM DEVELOPMENT MANAGER  
 5003 FAIRVIEW AVENUE - DOWNER'S GROVE, IL 60515  
 PHONE: (630) 795-1002 / FAX: (630) 795-1602  
 WEBSITE: [WWW.USTOO.ORG](http://WWW.USTOO.ORG)

**US TOO BOARD OF DIRECTORS:**  
 EXECUTIVE COMMITTEE/OFFICERS  
 JIM KIEFERT, EDD, CHAIRMAN  
 DON LYNAM, PHD, PE, CHD, VICE-CHAIRMAN  
 JOANN HARDY, SECRETARY  
 GREGORY BIELAWSKI, TREASURER  
 THOMAS KIRK, PRESIDENT AND CEO

**DIRECTORS:**  
 CHRIS BENNETT  
 ROBERT FIDOTN, PHD  
 CARL FRANKEL  
 RUSS GOULD  
 TOM HIATT  
 BOB HUSTEAD, MD  
 BILL PALOS  
 HARRY PINCHOT  
 JOE PIPER  
 JIM RABY



US TOO INTERNATIONAL, INC. IS INCORPORATED IN THE STATE OF ILLINOIS AND RECOGNIZED AS A 501(C)(3) NOT-FOR-PROFIT CHARITABLE CORPORATION. DONATIONS / GIFTS TO US TOO ARE TAX DEDUCTIBLE.

COPYRIGHT 2005 US TOO INTERNATIONAL INC.

## AS POPULATION AGES, URGENT NEED TO EDUCATE MEN AND THEIR FAMILIES ABOUT PROSTATE CANCER

The incidence of prostate cancer increases dramatically as men age. Currently, the baby boomer population - those individuals born between 1946 and 1964 - makes up nearly 30 percent of the U.S. population. The first wave of the 77 million baby boomers will be turning 60 next year during 2006. President Bush, for example, just turned 59. Those born at the height of the baby boom will be turning 50 next year and the youngest baby boomers will be turning 40.

As a result, during the next 10 years, the number of men diagnosed with prostate cancer is expected to increase by 40 percent from approximately 230,000 to over 300,000 a year. Furthermore, it's expected that over the next 10 years, the number of prostate cancer deaths could rise from 30,000 to 50,000 per year.

As Us TOO celebrates its 15<sup>th</sup> anniversary, it takes note of these alarming statistics, and remains firmly committed to educating men and their families about regular screenings and early detection, various treatment options, and the importance of education and support for prostate cancer patients, their companions and families.

Because of the medical advances, increased education and public awareness over the past 15 years, many men have been diagnosed earlier and have received successful treatment. Public figures such as former New York Mayor Rudolph Giuliani and New York Yankees manager Joe Torre have described their courses of treatment, and talked about the effect prostate cancer has upon their lives and the lives of their loved ones. Even Colin Powell and U.S. Senator John Kerry have talked about their experi-

ences as prostate cancer survivors.

Us TOO's international network of volunteers has been educating men and their families about the medical advances from prostate cancer research, the availability of support groups, and the different sources of treatment for the various stages of prostate cancer since 1990 when it was founded by five prostate cancer survivors looking for information and support.

But with an aging population and larger number of men expected to be diagnosed, much more needs to be done. As Us TOO looks to its next 15 years, we see the challenges an aging society presents and will continue to encourage all men to be screened at age 45. We recommend that men with a family history of prostate cancer and those at high risk such as African American men to get screened at age 40. Establishing a PSA baseline and monitoring any changes annually is the best way to "know your PSA" and have the information to manage your health.

### SURVEY OF PATIENTS WITH HORMONE REFRACTORY PROSTATE CANCER

Us TOO wants to encourage you again to take the time to complete the new survey for patients with Hormone Refractory Prostate Cancer (HRPC) and their family members on our webpage at <<http://www.ustoo.org>>. This survey was placed there in July and your responses will help Us TOO a great deal in preparing new materials and activities to better address the needs of men and their family members at this stage of the disease.

## PSA CHANGES OVER TIME PREDICT PROSTATE CANCER RISK

The answer to the biggest question in prostate cancer therapy -- which cancers need aggressive treatment and which are best left to undergo "watchful waiting" -- may lie in the results of the prostate-specific antigen (PSA) test, according to a new study.

But current practice, which relies on the PSA level gleaned from a single test, may need some tinkering, said Dr. Stephen J. Freedland, lead author of the study.

Instead, increases in PSA levels occurring over a series of tests appear crucial in gauging cancer risk, he explained.

"A single reading is like looking at one snapshot of a race," said Freedland, a clinical instructor in urology at the Johns Hopkins Hospital in Baltimore. "Watching the PSA change over time gives you a much better picture."

The rate at which PSA levels doubled over time was a critical factor for predicting death in a group of 379 men who underwent surgery for prostate cancer, concludes a report by Freedland's group published in the July 27, 2005 issue of the *Journal of the American Medical Association* (vol. 294, pp. 433-9).

"These preliminary findings may serve as useful guides to patients and their physicians to identify patients at high risk for prostate cancer-specific mortality ...[and] to enroll them in early aggressive treatment trials," they wrote.

Dr. Freedland noted, "Step one is to guess who to treat, and the PSA test can show that," he said. "Step two is how to treat them, and we're not there yet."

*HealthDay Reporter, 26 July 2005*

**NEW ADVANCED PROSTATE CANCER PUBLICATION RELEASED**

**Living with Advanced Prostate Cancer:** *When PSA Rises During Hormone Therapy* is a FREE new handbook developed specifically for men with advanced prostate cancer.

The outline of the handbook was based on extensive research with advanced prostate cancer survivors to determine what they needed and wanted to know. Content was developed by a group of nationally known prostate cancer medical experts, representatives from major prostate cancer advocacy and research groups (including representatives from Us TOO), prostate cancer survivors and their life partners.

This comprehensive handbook includes sections on:

Medical Issues

- A brief review of prostate cancer and its progression
- Treatment options and managing side effects
- Pain and pain management
- Your total treatment team
- Why and how patients should keep their own records

Other Ways Patients Can Improve Outcomes and Quality of Life

- The value of support
- Alternative therapies: how to assess and use them
- The role of diet and fitness
- Understanding medical terms and research
- Lists of resources
- ...and much more.

*Living With Advanced Prostate Cancer: When PSA Rises During Hormone Therapy* is available at no charge to physicians and individuals in the US, thanks to a generous educational grant from Abbott and by the Institute for Continuing Healthcare Education (ICHE).

To order a sample copy please visit the ICHE website at <[www.iche.edu](http://www.iche.edu)>. Allow 6 to 8 weeks for an order, Us TOO Chapters will receive copies with the September *HotSheet*.

**NEW RESOURCE FROM ASCO'S PEOPLE LIVING WITH CANCER: UNDERSTANDING A PATHOLOGY REPORT**

A new feature on ASCO's People Living with Cancer (PLWC) website can help patients and their families gain a better understanding of pathology reports and to learn what questions to ask their physician. It describes the various sections within the report and explains how to obtain a second opinion. The Diagnosis section details major characteristics of the tumor: (1) histologic grade, (2) tumor size, invasiveness and spread, and (3) tumor stage.

The questions can be used to start a dialogue between the patient and his or her doctor about his or her pathology report. The doctor will be able to address the real concern after each question, which can and should be asked each time: "What does the answer to this question mean for me?"

- What is the type of cancer, and from where did it originate?
- How large is the tumor?
- Is the cancer invasive or noninvasive?
- How fast are the cancer cells growing?
- What is the grade of the cancer?
- Does the cancer have certain markers to help define the outlook?
- Has all of the cancer been removed, or does tumor remain at the edges?
- Are there cancer cells in the lymph or blood vessels?
- What is the stage of the cancer?

To access, go to the People Living with Cancer website at [http://www.plwc.org/plwc/MainConstructor/1,1744\\_12-001195-00\\_18-0041553,00.asp?CMP=EMC-7UI367862671&MTYPE=M](http://www.plwc.org/plwc/MainConstructor/1,1744_12-001195-00_18-0041553,00.asp?CMP=EMC-7UI367862671&MTYPE=M).

**NON-INVASIVE TREATMENT OPTION COMES TO NORTH AMERICA**

An effective, non-invasive treatment for prostate cancer developed in Europe is now available in North America. Ablatherm High Intensity Focused Ultrasound (HIFU) uses ultrasound to safely destroy prostate tissue allowing patients to avoid the risks of surgery and radiation. Patients are now being treated in Toronto, Canada, where the device is government approved. FDA clinical trials are about to commence in the U.S.

Ablatherm-HIFU is a proven technology developed and perfected in Europe with clinical experience now exceeding 7,000 patients. This procedure offers a safe and effective alternative to the more radical treatments of surgery or radiation. Ablatherm-HIFU is a precise, non-invasive, delivery of high intensity focused ultrasound targeted to the prostate using a transrectal ultrasound probe under spinal anesthesia. This causes a rapid rise in temperature inside the prostate to 85 degrees Celsius effectively destroying the prostate tissue in a procedure that is completed in 2 to 3 hours without blood loss or exposure to radiation. Patients are discharged a few hours later.

Clinical studies from Europe, published in the *Journal of Urology*<sup>1</sup> have shown that 93% of patients have negative biopsies and 87% have stable PSA levels (less than 1.0) 5 years after treatment. Overall 90% of all patients treated with Ablatherm-HIFU require only one treatment and with complication rates lower than surgery, radiation, or cryotherapy.

Having Ablatherm-HIFU does not preclude other treatment options should there be a recurrence. Patients can choose to have another HIFU treatment, surgery, or radiation.

A tremendous advantage of Ab-

*(Continued on page 5)*

**HIFU***(Continued from page 4)*

latherm-HIFU is that not only may it be used to treat patients who have not received treatment and whose prostate cancer is confined to the prostate (T1 and T2), but also in those patients who previously received radiation who have developed a recurrence of their disease. Recent results from France<sup>2</sup> have demonstrated that 80% of radiation failure patients have negative biopsies and 61% have stable PSA levels of less than 0.5 ng/ml.

John A. Warner, MD  
Urological Oncologist

To learn more about Ablatherm-HIFU, visit [www.hifu.ca](http://www.hifu.ca)

**References:**

1. Blana A, Walter B, et al: High-Intensity Focused Ultrasound for the Treatment of Localized Prostate Cancer: 5-Year Experience. *Urology* 63: 297-300, 2004.
2. Gelet A, Chapelon J: Local Recurrence of Prostate Cancer After External Beam Radiotherapy: Early Experience of Salvage Therapy Using High-Intensity Focused Ultrasound. *Urology* 63: 625-9, 2004.

**US TOO APPROVED  
FOR YEAR 3 MINORITY  
AND UNDERSERVED  
OUTREACH PROGRAM**

The Department of Health and Human Services, Centers for Disease Control and Prevention (CDC) has formally notified Us TOO that it will receive Year 3 funding for our outreach efforts under the "Early Detection or Survivorship of Cancer in Under-Served Populations Program." The Year 3 award will allow Program Director Gene Wheeler and the growing number of volunteers to add eleven more states to the program, which started in Year 1 with four and expanded this year to fourteen (including the District of Columbia.).

**COMBINATION HORMONE/  
VACCINE THERAPY FOR  
PROSTATE CANCER MAY  
BENEFIT PATIENTS WHOSE  
DISEASE RETURNS**

A new study finds that a cancer vaccine combined with androgen deprivation therapy can help patients with recurrent prostate cancer. The results of this clinical trial, led by scientists at the National Cancer Institute (NCI), appear in the August 2005 issue of the *Journal of Urology* (Vol. 174, pp. 539-46).

This phase II trial was designed to treat patients with nonmetastatic prostate cancer who were experiencing rising levels of PSA, which can indicate recurrent disease.

This is the first study to combine antiandrogen therapy and a cancer vaccine for treating prostate cancer, and also the first randomized clinical trial in this population of prostate cancer patients. Cancer vaccines are designed either to treat existing cancers or to prevent the development of cancer. The experimental vaccine used in this study was designed to strengthen the body's natural defenses against prostate cancer.

"The question is, what do you do for someone who has already failed standard therapy with hormones?" said Philip M. Arlen, M.D., of NCI's Laboratory of Tumor Immunology and Biology. "This study was designed to answer that question and examined a population of patients whose cancers were resistant to hormone therapy, had no metastatic disease that was observable by computed tomography (CT or CAT) scan, but had a rising PSA score, an indicator of recurrence."

NCI scientists randomly assigned 42 prostate cancer patients to receive either vaccine or second-line antiandrogen treatment consisting of nilutamide. After the first six months of treatment, participants in both arms of the study — who had rising PSA levels but no evi-

dence of metastatic disease — could choose to receive the other treatment in combination with their first study treatment.

There were no serious side effects from the vaccine, but some of the participants receiving nilutamide experienced lung toxicities, an uncommon side effect sometimes associated with the drug. Median time to disease progression was 9.9 months for the vaccine alone compared to 7.6 months for nilutamide alone, not a statistically significant difference. However, 12 of the 21 vaccine patient that had nilutamide added to their treatment regimens after six months experienced an additional median time of 13.9 months until progression, for an overall response of 25.9 months.

The positive effects of combining antiandrogen therapy to vaccine "may be because the vaccine acts to 'prime' the immune system, and when you add the hormone treatment, it allowed the vaccine to work even better," said Arlen.

The rationale for testing a vaccine/hormone therapy combination came from clinical observations showing that hormone therapy increases the number of immune cells reaching the prostate gland, thereby allowing vaccines to work more effectively.

Arlen and his NCI colleagues are planning a follow-up study using a more potent, newer prostate cancer vaccine and a different antiandrogen (flutamide) at the same time, instead of sequentially, in similar patients. Flutamide has fewer and less serious side effects than nilutamide.

"Our goal moving forward is to introduce the vaccines into earlier treatment stages," Arlen said. "Next we want to keep this population of patients either stable or improving, and also prevent metastatic disease. Achieving that would be a tremendous benefit in terms of their quality of life."

*NCI, 25 July 2005*

## STANFORD SCIENTISTS DEVELOP PROBE THAT MAY AID EARLY CANCER DETECTION

Researchers from the Stanford University School of Medicine in Palo Alto, CA have developed a new way to spot subtle yet important chemical changes that take place early in the growth of tumors. The method could eventually help in the early detection of cancer and other diseases.

Matthew Bogyo, PhD, assistant professor of pathology, and his colleagues have created a molecule that can label proteases — protein-chewing enzymes that blast into overdrive in cancerous cells. Bogyo's new molecule contains a fluorescent tag that flashes brightly enough to be seen with conventional imaging equipment. The results appear Aug. 14 in the advance online issue of *Nature Chemical Biology*.

While there are other enzyme tags, Bogyo's "activity-based probe" is unusual in that it only lights up when the proteases are active. Moreover, it works in living cells, so the probe could potentially be used for whole-body imaging in the not-too-distant future. Such techniques might be able to detect the warning signs of cancer long before tumors have a chance to spread.

Proteases are a general class of enzymes found in all healthy cells, where they clean up old proteins no longer needed by the cell. But proteases are often abnormally active in rapidly dividing cancer cells. They also work overtime in tumors that are getting ready to spread, or metastasize, and in cells that are recruiting new blood vessels in a process called angiogenesis.

"This is an important tool for understanding the biochemistry of proteases, and how they play a role in diseases like cancer," Bogyo said. "And it's non-invasive and

fairly non-toxic, in that it doesn't involve radioisotopes."

So far, Bogyo's group has tested the probe only in cultured cells. But they soon plan to test it in mice to ensure that it is safe and bright enough to generate whole-body images of protease activity. If so, the probes might eventually be useful for imaging human bodies.

Bogyo's probe has several advantages over other enzyme imaging probes, and the combination of these characteristics makes it unique.

In one key innovation, Bogyo and his colleagues added a chemical subunit called a "quencher" that keeps the probe dark until the protease is activated. Much like a fluorescent light stick turns on when you crack it in half, the chemical changes that activate the enzyme also cause the quencher unit to pop off, switching the probe on "like a molecular beacon," Bogyo said.

The probe is also small enough to pass easily across the cell membrane, allowing it to be used inside living cells. In contrast, some probes only report on enzyme activity outside the cell.

The probe also forms a permanent bond with its target protease, allowing it to track where the protease is active. This is an improvement over other non-bonding imaging molecules that can signal when — but not where — proteases do their job.

"It's a nifty trick, a real neat approach," said Ben Cravatt, a professor of cell biology at the Scripps Research Institute in La Jolla, Calif., who was not involved in the research. He confirmed that the combination of permanent tagging and a quencher unit give the probe distinct advantages. "It's a great proof-of-principle," he added. "It will be interesting to see the method expanded to other proteases."

Cancer cells aren't the only ones with hyperactive proteases. They

are also found in cells affected by arthritis, osteoporosis, atherosclerosis and neurodegenerative disorders such as Alzheimer's.

While Bogyo's probe specifically targets a small family of proteases that are activated in several different forms of cancer, he believes that the same method can be used to make new molecules to probe for many other proteases. For example, he plans to focus on making probes for caspases — a type of protease associated with conditions such as stroke and Huntington's disease.

Besides making new probes, Bogyo and his team are working on imaging applications. "We have made the tool, now we want to go and use it," said Galia Blum, a postdoctoral scholar in Bogyo's lab and the study's lead author. "Our next step is to generate whole-body images in mice." Such images may distinguish between areas of normal and abnormal protease activity, as well as track changes in activity over time.

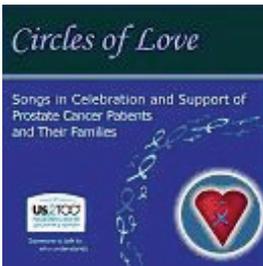
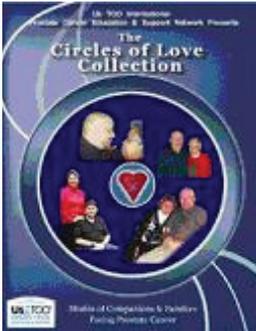
If all goes well in the mouse models, the researchers plan to pursue tests in human subjects. Bogyo believes fluorescent probes hold a lot of promise for studying cancer progression without relying on invasive procedures such as biopsy or surgery. If the probe is safe and useful for clinical applications, it might help advance the timetable on the course of cancer therapies. For example, many researchers are looking into anti-protease drugs as treatments for cancer. Instead of waiting to see if these drugs actually shrink tumors, activity-based enzyme probes could provide a way to verify immediately whether the drug does what it was designed to do.

"These probes have direct applications to human health, but they are also important research tools," Bogyo added. "People can apply them to their own experiments, and move the field forward in a lot of different areas."

*Stanford University, 14 August 2005*

**US TOO FEATURED RESOURCES**

To order, visit <[www.ustoo.org](http://www.ustoo.org)>



- 1) **NEW! *The Circles of Love Care Kit*** – \$24.99 includes S+H  
 Our new care kit is an excellent resource collection for friends and loved ones of those facing the battle against prostate cancer. Our care kit includes:
  - ***The Circles of Love Collection: Stories of Companions and Families Facing Prostate Cancer*** This new book, an Us TOO original publication, is a compilation of interviews with friends and loved ones of prostate cancer patients. These supportive and inspirational stories are meant to help others who are facing similar challenges. Also available separately for \$17.00 includes S+H
  - ***Circles of Love Music CD*** – This original collection of upbeat and inspirational songs was written to celebrate the love and support between the patient and his companions and family members. Contributing artists include Soozie Tyrell of the E Street Band, Alan Glass (who has written hits for Aretha Franklin, Earth, Wind and Fire, Kenny G and others), Jerry Peters (who has written for Luther Vandross and others), country artist Deborah Allen, and folk artist Kat Eggleston. 12 songs including pop, R&B, soul, country, folk and dance. Also available separately for \$15.00 includes S+H.
  - ***Intimacy with Impotence: The couples guide to better sex after prostate disease*** – This book, authored by Ralph and Barbara Alterowitz, is written for couples who have survived prostate cancer and whose normal sexual function has been disrupted. The authors bring a unique and personal perspective to the topics as they too live this experience. 220 pages.
  - ***What You Need to Know about Prostate Cancer*** – from NIH and NCI
  - ***“Life after Cancer Treatment” Resource and Referral Guide*** – excerpt from NCI



- 2) **NEW! Prostate Cancer Car Magnets “Know Your PSA”** – \$5.00 – includes S+H
- 3) **STRIVE Initiative Wristbands** – \$1.00 each plus S+H

- 4) **HotSheet Subscriptions** – \$35 for 12 issues  
 HotSheets are distributed FREE at all Us TOO Support Group Chapter meetings, and on [www.ustoo.org](http://www.ustoo.org). But what if you are unable to regularly attend chapter meetings, or don’t have access to the Internet? Don’t miss an issue—we can deliver it right to your home or office!
- 5) **“What You Need To Know For Better Bone Health”** – FREE Us TOO brochure
- 6) **100 Questions & Answers About Prostate Cancer** – \$14.95 includes S+H  
 By Pamela Ellsworth, MD, John Heaney, MD, Cliff Gill
- 7) **Prostate Cancer Resource Kit** – \$18.95 includes S+H  
Included in this handy boxed kit:
  - **A Primer on Prostate Cancer** - by Dr. Stephen Strum and Donna Pogliano
  - **Know Your Options** – from Us TOO and the National Cancer Institute (NCI)
  - **Prostate Cancer Treatment Guidelines for Patients** – from National Comprehensive Cancer Network (NCCN) and the American Cancer Society
  - **What You Should Know About Prostate Cancer** - from Prostate Cancer Research Institute (PCRI)
  - **Prostate Cancer Resource Guide** - from the American Foundation for Urologic Disease (AFUD)
  - **Us TOO / Phoenix 5 CD-ROM** - developed by Robert Young
- 8) **Understanding Prostate Cancer: A Patient’s Resource Kit** – \$7.50 includes S+H  
Included in this handy boxed kit:
  - **Humanizing Prostate Cancer: A Physician-Patient Perspective** by Roger E. Schultz, MD (Physician), and Alex W. Oliver (Patient)
  - **Living With Prostate Cancer** – booklet
  - **Know Your Options** – from Us TOO and the National Cancer Institute (NCI)
  - **Living With Advanced Prostate Cancer video** - patient testimonials on Viadur
- 9) **Prostate Pointers Virtual Support Communities** – FREE at [www.prostatepointers.org](http://www.prostatepointers.org).
- 10) **Us TOO Prostate Cancer NEWS You Can Use** – FREE e-News

*Proceeds from all items benefit Us TOO’s FREE programs, support services and educational materials for prostate cancer patients and their families*

**RACIAL VARIATION IN GSTP1 HYPERMETHYLATION  
SEEN IN PROSTATE CANCER**

CpG hypermethylation of the GSTP1 gene promoter may be a particularly sensitive biomarker of prostate cancer in African-American men, and it appears to be linked to more severe disease in Asians, a new study shows.

African-American men with this hypermethylation were more than 13 times more likely to have prostate cancer, while the risk seen with the hypermethylation was roughly 4-times greater among Caucasians and more than 8-times greater for Asians, Dr. Rajvir Dahiya of the University of California San Francisco and colleagues report.

Glutathione-S-transferases (GST) are catalysts for intracellular detoxification of carcinogens and drugs, the researchers note, and methylation of the GSTP1 gene promoter has already been reported to be more frequent in prostate cancer samples than in benign prostate hyperplasia.

The researchers conducted the current study, published in the August 5th issue of the International Journal of Cancer (Vol. 116, pp. 174-81, 2005), to compare the fre-

quency of GSTP1 methylation in benign and malignant tissue from different racial groups. The researchers evaluated 291 prostate cancer samples and 172 benign prostate hyperplasia samples for GSTP1 hypermethylation, using two primer sets.

Methylation of all CpG sites was seen in 65.6% of the prostate cancer samples and 24.5% of the benign prostate hyperplasia samples, and within each racial group studied hypermethylation was greater in the prostate cancer samples than in the benign tissue, the researchers found.

Among Asians, the researchers found an association between GSTP1 hypermethylation and clinical signs of prostate cancer severity, but the association was not seen in other ethnic groups.

The fact that GSTP1 hypermethylation occurred in some benign prostate hyperplasia samples suggests that the tissue may have acquired malignant potential even though it was diagnosed as benign, they note.

*Reuters Health, 2 August 2005*

**PROVENGE HELPS  
PATIENTS WITH  
ADVANCED PROSTATE  
CANCER**

Dendreon has announced that the analysis of the final three-year survival data of its second Phase III study of Provenge—an investigational active immunotherapy for the treatment of prostate cancer—showed a survival benefit in men with advanced prostate cancer who were treated with Provenge. Prostate cancer is the most commonly diagnosed non-skin cancer in the U.S. and the third most common cancer worldwide.

In the study, the three-year final survival analysis in the intent-to-treat population of the double-blind, placebo-controlled study of Provenge in 98 men with asymptomatic, metastatic, androgen-independent (hormone-refractory) prostate cancer showed a 20 percent improvement in median survival, compared to a placebo. In addition, at the three-year final follow up, the percentage of patients alive in the Provenge-treated group was substantially greater than the percentage of patients alive who received a placebo.

*Dendreon, 25 July 2005*

**US TOO INTERNATIONAL Tax Deductible Donation**

Name: \_\_\_\_\_ Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Phone: ( ) \_\_\_\_\_ Fax: ( ) \_\_\_\_\_ e-mail: \_\_\_\_\_

Please accept my enclosed tax-deductible donation to Us TOO a not-for-profit 501(c)(3) organization.

Amount: \_\_\_\_\_ \$25 \_\_\_\_\_ \$50 \_\_\_\_\_ \$75 \_\_\_\_\_ \$100 Other: \$ \_\_\_\_\_ Check # \_\_\_\_\_

VISA/MasterCard # \_\_\_\_\_ Expiration Date: \_\_\_\_\_ / \_\_\_\_\_

Signature \_\_\_\_\_

**US TOO INTERNATIONAL, Inc., 5003 Fairview Ave., Downers Grove, IL 60515**