

PSA NEWSLETTER

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**PROSTATE(CANCER)
SUPPORT AWARENESS
ADELAIDE GROUP**

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over 5,180 since Nov 03
A Member of the Association of Prostate
Cancer Support Groups (SA) Inc.

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NEWSLETTER NO. 76

March 2007 Newsletter including a report on the March Meeting
held at the **Fullarton Centre on Mar 19 2007**

Thank you to our sponsors:- Federal Government's Cancer Support Groups Grant Program and the State Funded Volunteer's Support Fund. Members Please Note:- Our next meeting will be a talk by **Mr. Ray Nicholson** from the **Cancer Care Centre, Unley**, dealing with "meditation" and the various activities carried out at the centre.

We will also screen two short videos dealing with Dr. Red's new "Blueberry Cordial" and the recent ABC 7.30 Report on the pros and cons of PSA testing and also we have a video of Joe Bridges commencing his cancer walk from Adelaide to Melbourne on Good Friday.. Roll up!

7.00 pm on **Monday 16th Apr, 2007**, at the **Fullarton Park Centre, 411 Fullarton Road, Fullarton, not at the Burnside Hospital.**

Chair: Barry Oakley

Members present 44.

Apologies: Reg, Gary, Daryl, Richard and Valerie.

New Members: Patrick and Henry.

The Positions of President and Secretary, PSA Adelaide:

As mentioned in our last Newsletter we are still looking for a couple of volunteers to take over the roles of President and Secretary after our meeting on 18th June '07. Up until that date, Barry Oakley will continue in his capacity as President and Ian Fisk will act as Interim Secretary. We would like these two important positions to be resolved before the June deadline if possible. Any volunteers are asked to ring Barry on 8265 3446 or Ian on 8296 3350.

Arthur Seager is happy to carry out the duties of Treasurer, but if someone wants that particular job, he said "OK" and he will nominate for the position of President. Both ladies and gents can apply for the above positions. So, it's over to you!

Library News:

We have bought 3 copies of the new book "What Women (and their men) need to know about prostate cancer". The PCFA has also sent us a free copy. See John if you want to borrow a copy. Heather Rankin of the Cancer Council SA has sent us 10 copies of the revised edition of the book "Localised Prostate Cancer". These are also in our library.

Our Prostate Cancer Information Brochures:

Ian has a supply of our amended brochures showing our new meeting venue. Please see him if you are able to take some away with you and place them in your doctor's surgeries or chemist shops. Grab any old brochures that show the Burnside Hospital as our meeting place and give them to Ian at our next meeting.

Treasurer's Report:

We received an anonymous cheque for \$50 during the last 4 weeks. Many thanks to the chap who sent it!

PROSTATE(CANCER) SUPPORT AWARENESS MITCHAM GROUP

(www.psamitcham.org)

April 26th meeting will be a talk by Dr Brian Landers, Urologist

All welcome, Colonel Light Gardens RSL Club, 4 Prince George Parade, Colonel Light Gardens at 7.00 pm to 8.45pm

The Cancer Care Centre, Unley

The Cancer Care Centre is at 76-78 Edmund St, Unley, SA.5061. Phone No.8272 2411.

Their web site is www.cancercare.asn.au The centre was established in 1985 and is a non-profit association where sharing of information, skills, ideas and emotions are valued. People are able to complement their cancer medical treatment

using a holistic healing approach where mind, body and spirit are nurtured and developed. Contact the centre if you would like them to forward you pamphlets that outline their activities etc. *Note our April speaker, Ray Nicholson is from the Cancer Care Centre.*

Reg and Gary

Reg is coming along OK after his bowel operation at Daw Park and even drove his car the other day, but he still has a fair way to go and may have a bit of chemotherapy in a month's time. Still, he is making good progress and has got rid of the catheter. Hooray!

Gary has spent a week in the Calvary Hospital on pain control. He came home today (4.4.07). A hot spot in his shoulder is the main problem. The pain has now just about gone but he could be in line for some more radiotherapy treatment on his shoulder. Get well Gary!

Prostate SA

As reported in our last Newsletter, Prostate SA convened a meeting on 1.2.07 where representatives of all the SA prostate cancer support groups were invited to attend. The Chairman, Mr. Ray Blight, asked delegates for some ideas whereby Prostate SA may be able to assist the various Support Groups. A number of suggestions were put forward and Ms Ellen Kerrins, (Group Executive, Cancer Control Programs, Cancer Council SA) listed these under the heading "Consumers Meeting Briefing Paper". The suggestions were as follows:-

Consumers should be considered as participants in research trials and have a representative on "The Working Committee". Consumers have expertise in "Awareness of Prostate Cancer" and could be of great assistance. Brent Frewen (Prostate SA Events Manager), said that any delegate interested in going onto the Working Committee should send their nominations to him.

Another recommendation was that dietary information should be given by Urologists when men are first diagnosed with prostate cancer. To our knowledge, this is not done at the present time.

This year's Prostate Cancer "Call-in" date should be put on the Cancer Council's SA web site as soon as possible. Also the Support Groups information brochures should be made available at the Cancer Council's SA "Call-in" and at any other prostate cancer function (eg. Awareness Evenings) held at their centre. None were seen there last year. The Cancer Council's Help Line has quite a few of our brochures available. We can also supply plenty if required.

The PCFA "Ambassadors" program's South Australian speakers may be able to assist with the Cancer Council's SA "Speaker's Bureau" if a speaker is wanted to give a presentation on Prostate Cancer.

Could Prostate SA assist the Prostate Cancer Action Group SA Inc., conduct an Adelaide "Awareness Evening" during September? If so, please liaise with Jeff Roberts.

"Healthy Lifestyles" should be emphasized in GP's Newsletters that are sent out to hundreds of GPs in S.A. every

so often. Also it wouldn't hurt if they mentioned prostate cancer awareness occasionally.

Country community transport for medical purposes is very poor and in some cases non existent. Some action needs to be taken to rectify this position. Regional chemotherapy centres could also be set up in some of the larger towns e.g. Mt. Gambier, Whyalla, Port Augusta and Port Lincoln. This would eliminate the need for country people to travel to Adelaide and stay here for long periods at great expense to undertake their treatments. This is already being done in some other States and SA is lacking behind in this.

The "Be-a-Man" Campaign could be revived, especially in rural areas. A "Shop Front" run by the Cancer Council SA in larger country towns could be considered. There is also a need for more GP's to be convinced of the value of the existing PSA tests for prostate cancer. Some won't even carry out these tests even when requested to do so by male patients. This is pretty poor indeed!

Information on the outcome of various trials of drugs for prostate cancer should be made available to the Support Groups. There is also a need for the training of nurses in S.A. for the care and well being of prostate cancer patients.

The Cancer Council's SA "Prostate Cancer" pamphlet is out of date and should be re-written. All the delegates of the Association have submitted ideas to the Cancer Council about this. Assoc/Prof. Brenda Wilson, CEO of the Cancer Council SA, has now advised that the pamphlet will be withdrawn and not replaced. They will rely in future on the revised edition of the book "Localized Prostate Cancer" plus the revised Mr. PHIP (Prostate Health Improvement Program) pamphlets to get the message across to men. The book and the Mr. PHIP pamphlets are available at the Cancer Council SA offices should anyone want them. Just ring Ph. No. 8291 4111.

Mr. Ray Blight said that Prostate SA would have a look at the above suggestions and thanked delegates for their input.

(Reg's notes)

Note:- In our next issue, we will include an article by our research librarian, John Mayes about Soy products

Public Prostate Cancer Awareness Evening at Strathalbyn

Thanks to the support of the local Pharmacy and District Health Service, the evening of March 20th was a very successful one. The attendance was 105. Trev Hunt efficiently ran the evening. The speakers included Dr John Bolt (pictured to the right), Nancy Sinclair, Robert Kitto, Coralie Hunt and Malcolm Ellis. Jo Bridges also spoke briefly about his upcoming walk to Melbourne commencing on Easter Sunday.

The venue, the Reg Sissons Memorial Day Care Centre, was a great location for the evening. Not many more would have fitted. Special mention must go to Carlyne Chandler from the Strathalbyn Health Service and local pharmacist David Merry.



Other Action Group Activities

Man Alive 2007, Men's Health & Well-Being Festival
Sunday March 18th Semaphore Foreshore

Many members PCAGSA group attended at a booth with a display of pamphlets to promote prostate cancer awareness. Members attending included Fred, Trev and Coralie Hunt, John and Phyllis Shields, Robert Kitto, Jeff and Theban Roberts, Malcolm and Beverley Ellis and Ian Fisk. Quite a few people stopped at our booth, chatted to our members and took away information.

St Marys Probus Club

On March 19th I Fisk gave his first PCFA Ambassador Program presentation. It seemed to go quite well. The attendance was 46 composed of both men and women. (Note the story on the Ambassador Program in the enclosed Prostate News.)

Karoonda Farm Fair 30/31st
March 2007

Another successful event for PCAF group. Members of the group attending included Trev and Coralie Hunt, John and Phyllis Shields and Malcolm and Beverley Ellis.

Kapunda Farm Fair

27/28th April 2007

Members of the Action group will attend this function this year.



Fred at Semaphore



SAC National Conference 2007

The Support & Advocacy Committee annual Conference was held in Sydney on the 2nd & 3rd April. Jeff Roberts and Ian Fisk attended.

Jeff went on behalf of the PCAGSA group, and Ian in place of Gary Bowes. Gary was a long way from well enough to attend himself. No one else seemed willing or interested enough to attend so Ian got to go!

We flew over on Sunday evening, returning Tuesday afternoon.

Representatives from support groups from Western Australia, Queensland, Victoria and New South Wales were also there.

Many topics were covered including Governance (state chapters roles, responsibilities and membership), Policy Guidelines (budget process, bank accounts, fundraising and compliance, insurance, incorporation, The Ambassador Program on the first day.

Tuesday included presentations on "Effective ways to influence Government" an interesting session with much

information on the lobbying for Taxotere to be added to the PBS. Sally Crossing AM spoke on the Breast Cancer National Action NSW group and also on Cancer Voices NSW (Sally was also very involved in the publication of the "Directory of Breast Cancer Treatment and Services", this initially covered just NSW but now all of Australia) a version is available on line at <http://www.e-strategy.net.au/bci/directory/>.)



Chair of the SAC
Bill McHugh

The general concept was expressed many times that the support groups should concentrate on Support and the PCFA on fund raising. It was also suggested, quite strongly at times, that PCFA should not forget its fundamental purpose to serve Prostate Cancer Patients and their carers. In that line consumers should have more influence on the boards!



Stop Press

John Shields, Chairman of the Onkaparinga P/C Support Group has advised that his group has obtained a grant of \$2860 from the Federal Government's Department of Families and Community Services to buy a new computer, printer and camera. Well done John!

"Zometa" Trials being conducted by the Royal Adelaide Hospital

For further information please contact the Research Coordinators, Catherine Easterbrook and Olivia Corso on (08) 8222 4438 or alternatively, Professor V. R. Marshall on (08) 8222 5680. Recruitment will finish Sept 2007.

March 2007 Meeting

The March Presentation was by Tony Michele, Medical Oncologist, Calvary Oncology

Dr Tony Michele gave the group a very comprehensive power point presentation complete with amusing and educational graphics and anatomy information. Dr Tony kindly allowed me to have a copy of his slide show, so this summary uses that and some notes I made! (46 slides were shown, and many additional words spoken, there is not enough space to include more than a summary!) The slides clearly showed the difference between a normal prostate and an Enlarged prostate, the slide showing digital rectal examination (DRE) clearly showed how the prostate can be felt by that method.

A lot of basic information was presented on “**What is cancer**”. Many graphs were shown, much of the information obtained from the South Australian Cancer Register (which is available online at <http://www.dh.sa.gov.au/pehs/branches/branch-cancer-registry.htm>, or just do a Google search for it!) eg in SA in 2004 1326 new case of Prostate Cancer were diagnosed compared to 630 of Colorectal cancer. In 2004 there were more new cases of men diagnosed with Prostate Cancer than the 1035 new cases of women diagnosed with breast cancer.

One graph showed how the incidence of Prostate Cancer rose during the 1990s (when the PSA test became more commonly used) but the mortality rate has remained relatively constant. Hopefully later analysis will indicate a lowering of mortality!

Risk Factors were discussed, with age being the most significant one. Only 9% are inherited.

The other risk factors mentioned were hormones (direct relationship with androgens, castrated males don't get prostate cancer!), race and dietary fat intake (conflicting data, though Japanese immigrants to US increase their risk through generations)

STAGE Very clear diagrams were shown of a normal prostate through to Stage IV (where the cancer has spread locally and may have spread to other organs).

Gleason Score of a pathological biopsy sample was also covered (Made up of 2 scores (1 to 5) added together ie 3 + 4 = 7, the first score from primary grade (most prominent) and second score from secondary grade,

PSA – prostate specific antigen was also spoken about. Some of the problems of the inadequacies of the PSA test were discussed and “reasons” why it is not yet fully supported by all as a screening tool.

Treatment Options The various treatments options for localized prostate cancer of, watchful waiting, surgery, radiotherapy (including brachytherapy) and hormones were explained. The relative side effects of surgery verses radiotherapy for localised prostate cancer were discussed complete with figures. A number of slides listed the benefits of different treatment options and side effects and risks of treatment options.

Advanced Prostate Cancer was covered in considerable detail including slides and discussion about: **Spread** (to lymph nodes, bones, liver, lungs), **Intention of treatment**

(Control of the cancer, Prevention of complications, Management of symptoms related to the cancer and its treatments, Improving or maintaining Quality of Life and Support the patient and his family) and the actual **treatment options** of - **hormones**, **prednisolone** (Drive calcium back into bones, Treatment for high calcium, Reduce pain from bone metastasis, Treat osteoporosis, Reduce risk of fracture or complications of fractures, 15 min iv infusion ~ 4 weekly, Well tolerated), **bisphosphonates** (Improves pain and symptom management, No change in overall survival, IV usually given with prednisolone, Moderate side effect profile), **chemotherapy** (Docetaxel, Taxane – synthetic version of paclitaxel, IV infusion 3 weekly (90min), Shown benefit in overall survival and symptom control compared to mitoxantrone, Mod-high side effect profile, Used in hormone refractory advanced prostate cancer, Not PBS listed, Cost \$2500 per cycle), **radiotherapy** (including **EBRT** (for Bone pain from secondary cancer, Treatment of nerve compression, Can help with bleeding or reduce size of lymph node masses, Usually in short bursts (1 to 5 day course)) and **Strontium 89** (IV radioactive medication, Can significantly improve bone pain from multiple sites, Can cause bone marrow suppression, Can be repeated if bone marrow allows, Difficulty combining with chemotherapy)) and **surgery** (Turp (for urinary obstruction), cystoscopy (for management of bleeding) and neurosurgery (to relieve pressure on nerves compressed by bone lesions)). Many of the side effects of all were also discussed (for anti androgens they included nausea, breast enlargement, diarrhoea, low red blood cell count, decreased sex drive, erection problems, liver problems. Some cases of serious liver problems have been reported and osteoporosis in long term use.

Treatments for **Radiation Proctitis** of diarrhoea (anti diarrhoea and low residue diet) and rectal inflammation (Steroid enemas, Argon laser and Formalin application) were also discussed.

Clinical Trials were also covered (Valuable means of advancing knowledge, Access to medications not readily available, Close monitoring of progress, May not directly benefit you, Strict eligibility criteria to balance comparison groups)

Palliative/Supportive Care also discussed. Topics covered include regional Palliative care unit, Pain control, Symptom control, Home supports, Blood product support and Psychological support for patient and family.

Resources – a number of internet resources were listed. On top of his list was our website www.psaadelaide.org!

Many questions were asked by our group and answered well by Dr Michele.

As a thank you for his efforts, our Barry Oakley presented Dr Tony Michele with a bottle of red!

Ian Fisk



Cancer-fighting prostate drug developed

March 23, 2007 - 5:29PM

An experimental drug designed to fight the spread of aggressive prostate cancer is showing great promise for future sufferers, Australian developers say.

A team from the University of New South Wales is working on a new therapy for prostate cancer patients who stop responding to standard hormone treatments.

The medication is still in the development stage but if new tests prove successful, it could bring relief for a group of men for whom there is currently no treatment, said study leader Dr Kieran Scott.

“We’ve seen enough positive data to know it’s worth testing in people,” Dr Scott said.

Prostate cancer is the most common cancer in Australian men, with patients usually treated with some combination of surgery, radiation and hormone medications.

These drugs effectively limit the spread of prostate cancer in the early stages by suppressing the male hormones that tumours need to grow.

But over time cancers often stop responding to this treatment, putting men at risk of tumour growth and cancer spread to the bones.

Dr Scott said his team at St Vincent’s Hospital in Sydney believed it had a new oral medicine that could slow the growth of hormone-resistant cancer and stop its spread.

The medication works by blocking an enzyme which releases Omega-6 fatty acids - fats which, when consumed in the diet, have been associated with increased rates of disease.

“We think we can slow the growth of tumours that are resistant and we believe the drug may also help slow the growth of tumours in bones,” Dr Scott said.

“If we can help in those two areas then we’ll have a therapy for prostate cancer patients who currently have no good treatment.”

The team has been granted Cancer Council NSW funding for a new round of tests, with plans to manufacture and trial the experimental compound in the most severely-affected patients if they have success.

“I’ve been working in this area for 10 or 15 years and to be honest I didn’t think this would work,” Dr Scott said.

“But the data keeps me going because it keeps suggesting this approach really will work.”

Other cancer grants awarded include an investigation of genes that predispose people to melanoma and a study of new techniques to minimise breast cancer surgery side-effects.

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Prostate cancer misdiagnosed in some men

March 28, 2007 - 6:04AM

Overweight men are far more likely to get misleading results to prostate cancer tests that compromise their treatment, new research has revealed.

A study has found that prostate biopsies commonly used to diagnose the extent of the disease regularly underestimate the severity in men carrying extra weight.

The results, published by US scientists on Wednesday, suggest that many men receive inadequate or inappropriate treatment that is not aggressive enough to combat the true nature of their disease.

Cancer Council Australia chief executive, professor Ian Olver, said the findings were concerning, and urged clinicians to carry out more thorough testing on these patients.

The study compared biopsy results with actual disease in more than 1,100 US men who had had their prostate removed as part of their cancer treatment.

A biopsy - surgery to remove and test small slices of the organ - typically follows the standard PSA blood test used to indicate the presence of disease.

The research, led by Duke University, showed that obese men were 89 per cent more likely than slim men to have a more aggressive form of prostate cancer than was indicated by biopsy.

Men who registered as overweight but not obese had a 44 per cent increased risk.

Study leader Stephen Freedland said the results were worrying because under-diagnosed men potentially miss out on additional treatment, like hormone therapy, that could save lives.

It was already known that PSA test readings were less accurate in overweight men, he said.

“These findings further suggest that we could be missing even more high-grade disease among obese men,” Dr Freeland wrote in the latest issue of the journal Urology.

The reason for the discrepancy was still unclear. But the researchers believe obese men’s larger prostates could mean that the usual number of samples taken during a biopsy is insufficient to reveal the gland’s actual status.

Prof Olver said it was important clinicians were aware of the problem and conducted more biopsies on these patients to

Make love not war, or do both - get married

No matter what happens there is someone who knew it would.

Enzyme find sheds light on cancer

AM - Friday, 30 March, 2007 08:12:00

Reporter: Lindy Kerin

TONY EASTLEY: Australian researchers claim to have made a significant discovery about cancer cells by successfully identifying components of an enzyme active in 90 per cent of all cancers.

The findings by scientists from the Children's Medical Research Institute have been published today in the journal Science.

Lindy Kerin reports

LINDY KERIN: Cancer researchers discovered the enzyme telomerase almost 20 years ago. It's found in 90 per cent of cancer cells, and enables them to multiply. But until now, little has been known about its composition.

Dr Scott Cohen is the head of the research team at the Children's Medical Research Institute in Westmead.

SCOTT COHEN: Throughout the past research into telomerase, 32 distinct proteins have been proposed to be part of the telomerase enzyme.

Well, what we found was that in fact, telomerase contains only two proteins, and so the impact that's going to have, it should really focus research into telomerase and cancer, instead of having to study 32 different proteins, researchers may now have to study just two.

LINDY KERIN: Dr Scott Cohen says the discovery is a major boost to cancer research.

SCOTT COHEN: Now that we know the composition of

telomerase, it opens the way for more advanced structural studies. And if you know the precise three-dimensional structure of an enzyme, then that's an excellent starting point for the rational design of drugs that will block the action of telomerase.

LINDY KERIN: Dr Roger Reddel is the Institute's Acting Director and has described the discovery as significant.


ROGER REDDEL: I usually don't like to use the term "breakthrough", but rather see progress in terms of steps. But this is a step that we regard as a pretty big one.

Now that we know what the components of telomerase are, we're in a much better position to do what we call rational drug design. So, design specific molecules, targeted against this enzyme that will interfere with its activity and therefore be in a better position to treat cancer.

LINDY KERIN: Dr Andrew Penman from the New South Wales Cancer Council has been closely monitoring the research project since 1998. He hopes it will speed up the process of delivering successful cancer treatment.

ANDREW PENMAN: If drugs can be successfully designed that inhibit or stop the action of telomerase, it's possible to see cancers being treated, for instance as a chronic disease, so that as long as you take the drug, the cancer won't grow.

Or it's even possible that inhibiting the enzyme, will allow you then to administer other drugs which are more effective in killing the cancer.

TONY EASTLEY: Dr Andrew Penman from the New South Wales Cancer Council ending Lindy Kerin's report." 

Tomato Stacks

We all know how good tomatoes are for you. Here is a simple and healthy recipe for those summer time lunches on the patio—**Tomato Stacks**

500g loose field grown tomatoes;

1/3 cup pine nuts;

2 tablespoons basil pesto;

100g feta cheese, finely crumbed.

Pre-heat oven to 200 deg C. Leave the calyx and some stem on the tomatoes.

Slice a small amount off the base of each tomato so it will not fall over. Cut each tomato into thirds horizontally.

Combine pine nuts, pesto and feta cheese in a bowl. Arrange a spoonful of mixture between the tomato layers and press together firmly.

Place tomatoes into a medium sized ovenproof dish. Drizzle

with olive oil and bake for 15-20 minutes. Serve as an entrée or with grilled or barbecued meats.

*Ricotta or goats cheese can be used as an alternative.

Preparation time 15 minutes

Cooking time 20 minutes

Serves 5.

from the Mitcham Support Group Nov 2006 Newsletter (note all their newsletters are available from their site at www.psamitcham.org) 



On Taking a Wife

'Come, come,' said Tom's father, 'at your time of life, There's no longer an excuse for thus playing the rake, It's time you should think, boy, of taking a wife.'

'Why so it is father. Whose wife shall I take?' *Thomas Moore*

Prostate Cancer News from NPCC

Panel Recommends FDA Approve Prostate Cancer ‘Vaccine’

A Food and Drug Administration (FDA) advisory panel announced Thursday that a new treatment designed to turn the body’s own immune system against deadly prostate cancer tumors is both safe and effective. The panel is recommending that Provenge (sipuleucel-t) from Dendreon Inc. be approved by the FDA for treatment of advanced prostate cancer. The FDA usually follows what the advisory panels recommend. An FDA decision is expected in mid-May.

Provenge was the first vaccine for any cancer shown to extend life. This will be the first immunotherapy approved for treatment of prostate cancer and the second drug ever approved for advanced prostate cancer, after Taxotere

Full story . <http://abcnews.go.com/Health/CancerPreventionAndTreatment/story?id=2993424&p>



Prostate Cancer Risk Tied to DNA Changes

Scientists said yesterday that they have identified a set of changes in human DNA that are common in the American population and that, together, can increase the risk of the disease by more than five times. These changes may be responsible for up to two-thirds of African-American cases and one-third of the cases among Caucasian-Americans, according to a report in the journal Nature Genetics.



Soy Intake May Stave Off Early Prostate Cancer

Consumption of the estrogen-like “isoflavone” substances found in soy may reduce the risk of developing early prostate cancer, but isoflavones appear to be associated with advanced disease if prostate cancer does occur, Japanese researchers report.



What We Do Know?

The spread of cancer (metastasis) is the primary cause of death due to cancer, as opposed to growth of the original tumor. When prostate cancer spreads, it most often spreads to bone. Treatment is available, both to try and slow the spread of cancer to the bone and to alleviate pain and suffering, but at this time there is no known cure.

Eventually bone metastasis causes damage to the bones, interferes with the function of bone marrow in producing blood cells and causes damage to the spinal column.

Medications, such as bisphosphonates, are available to help strengthen bones and reduce the impact of cancer on the bone. Bisphosphonates are also being researched for their potential to block cancer from taking root in the bones.

Radiation can be used to treat bone metastasis in a specific area. Surgery is sometimes needed to remove tumors from the bone and reinforce damaged bone structure.

Systemic therapies treat the cancer wherever it is in the body. They include hormone therapy and chemotherapy, used to treat recurrent prostate cancer before it has spread and to slow the spread of cancer in the bone, and radiopharmaceuticals, drugs that deliver radioactivity to the bone.

Only recently have researchers begun to understand the process of metastasis and discover potential ways to treat and even possibly cure it.



Overview: Prostate Cancer Metastasis

If researchers could stop cancer from spreading, they might be able to stop it from killing. Researchers are learning more about what makes cancer cells leave the original site, travel and take up root in new locations.

Our website’s new research section contains more about research on new ways to treat advanced prostate cancer whether it has spread or not, such as new types of chemotherapy, vaccines and targeted drugs .

One new theory suspects **cancer stem cells**, capable of traveling and creating new tumors. If this is true, treatments could target the stem cells, focusing on preventing cancer’s spread rather than shrinking non-lethal tumors.

Other research showed men whose cancer tissues tested high in levels of **Cox-2** (cyclooxygenase-2) had a fifty percent higher rate of metastasis. In other studies, use of Cox-2 Inhibitors, such as the popular painkiller Celebrex, reduced the risk of cancer significantly.

Stanford researchers discovered that tumors in a low-oxygen environment make a protein called **LOX** (Lysyl oxidase) which helps the tumor spread to other organs. In lab tests, they used three different methods of shutting down LOX and found the tumors treated with these methods were less likely to spread than those allowed to continue producing LOX.

Other researchers have discovered a protein, **CIB1** (calcium and integrin-binding protein 1), that regulates the fundamental process of cell migration, and may provide a target for treatment to stop cancer cells from spreading.



GENE THERAPY FOR PROSTATE CANCER

Presentation by Prof. Pamela Russell, AM, 27 November 2006

Report by Mark Tweeddale

Professor Russell's work is directed toward developing therapies for prostate cancer. She explained that prostate cancer has, until recently, been considered unresponsive to chemotherapies which are effective on other cancers. This may be because prostate cancer cells generally multiply much more slowly than other cancers, and so are less susceptible to the toxic effects of chemotherapy drugs.

Very recently (two to three years) it has been found that the chemotherapy drug Docetaxel (Taxotere™) extends the life of prostate cancer patients by a median period of a couple of months. However, only about 40% of men respond to it, and it has very unpleasant side effects for many men which can lead to the treatment being cut short.

Prof. Russell then outlined approaches to the development of treatments using cancer-targeted gene-directed therapy. These have the potential to attack cancers in the prostate itself, and also to trigger a strong immune response to attack secondaries elsewhere in the body, without (unlike conventional chemotherapy) imposing toxic effects on the rest of the body.

She noted that the prostate is ideal for gene therapy as it can be accessed quite easily, so medication can be injected directly into the prostate itself rather than having to expose the whole body to it. This approach can avoid side effects to normal tissues.

Gene-Directed Pro Drug Therapy (GDEPT).

One of the approaches in her research entails identifying a gene that encodes an enzyme, and injecting it into the cancerous prostate. Then a 'pro drug' is injected systemically. This pro-drug has minimal effects on the body as a whole, but when it encounters the gene in the prostate, it is converted to a toxin that attacks the cancer cells that contain the gene. The effect spreads to adjacent cancer cells which do not contain the gene (the "Local Bystander" effect). In the case of some GDEPT therapies, this in turn promotes natural killer cells and T Cells

(that form part of the immune response) that attack the cancer elsewhere in the body (the "Distant Bystander" effect). To promote safety, a regulatory switch (promoter/enhancer) that works only in the prostate is inserted before the gene. This prevents the treatment from damaging other types of cell eg, the liver. (As the approach starts with injection of the gene into the prostate, it is not suitable for men who have had a radical prostatectomy). Genes of interest have been identified, and promising results have been obtained with studies in mice. Prof. Russell used pictures and graphs extensively through her presentation to illustrate the processes involved and the results obtained.

CSIRO is expected to start a preliminary gene therapy clinical trial in 2007, involving a small number of volunteers with very advanced cancers.

Prof Russell foreshadowed a number of future developments, including:

1. analysis of the different types of immune response, so as to improve its effectiveness.
2. tests on a type of mouse (called Transgenic mice) which have been engineered to get prostate cancer as they age.
3. enhancement of efficacy using yeast rather than bacterial genes to encode the enzymes involved in converting the pro-drug to the toxins.

Yeast genes have been shown to be more efficient.

4. enhancement of delivery using nanoparticles—work with the Department of Chemical Engineering at UNSW has been initiated.

Professor Russell was awarded an Honorary Life Membership of the Prostate Cancer Foundation of Australia in 2006. We are very grateful to Prof Russell for speaking to us about her 'leading edge' research.

from the March 2006 Newsletter of the Sydney Adventist Hospital Prostate Cancer Support Group (available on line from a link on the list of NSW Prostate Support Groups on the Prostate Cancer Foundation of Australia site www.prostate.rog.au)



GEOFF LOVEDAY'S 1850km BIKE RIDE FOR "SECRET MENS BUSINESS" PROSTATE CANCER RESEARCH

Adelaide to Coffs Harbour

Starting April 22 2007 arriving Coffs Harbour 4th May 2007 (approx!)

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This Newsletter was compiled and typed by Reg Mayes and Ian Fisk. Ian Fisk, John Bailey, Reg and Amy Mayes folded and posted the Newsletter. After re-arranging news items on his computer and supplying the photographs, Ian printed the master copy. 320 copies were distributed. Pam Fisk proof read the Newsletter. We would like to thank the Cancer Council South Australia for providing their support and particularly to Heather Neill for her contribution. The views expressed in this Newsletter do not necessarily represent the views of the Cancer Council SA. Disclaimer – The PSA (Adelaide Group) is not responsible for advice given by guest speakers, or use of products mentioned in this Newsletter. Nor are we responsible for information contained on websites, books, magazines, pamphlets or extracts from articles mentioned in this Newsletter, nor for video, DVD's or tapes distributed to members. Medical Advice should be obtained from your Doctor.