Manitoba Prostate Cancer SUPPORT GROUP

Newsletter

Vol. 307 1,300 copies printed/e-mailed **April 2017**

Exciting New And Innovative Technology For Prostate Cancer Detection.

A team at the University of Alberta has developed an exciting new combination of existing technologies which will simplify and speed up prostate cancer detection and determination of its nature, and be as accurate as physical biopsies.

John Lewis is an associate professor in experimental oncology, in the Department of Oncology at the University of Alberta, and the Frank and Carla Sojonky Chair in Prostate Cancer Research.

Professor Lewis is co-author of a study published in the journal Cancer Research, which is entitled Enhanced detection of cancer biomarkers in blood-borne extracellular vesicles using nanodroplets and focused ultrasound.

Typically men will get a simple blood test for the presence of PSA (prostate-specific antigen), if the level is high it might indicate the presence of a prostate cancer. To be sure however, a biopsy is required. This is a highly invasive and unpleasant experience.

Lewis says that men with low grade prostate cancer can decide to monitor the disease, but that usually involves getting this invasive biopsy every year or so. Because of this he says, "Many people opt for surgery instead of more biopsies. It is clearly something we need to improve upon."

New technique would be faster, simpler, and non-invasive

That improvement seems well on the way. This new procedure uses two

(Continued on page 2)

Medical Advisors

Paul Daeninck M.D.
Medical Oncologist

Darrel Drachenberg
M.D. Urologist

Graham Glezerson
M.D. Urologist

Ross MacMahon
M.D. Urologist

John Milner
M.D. Urologist

Jeff Sisler M.D.
Family Practitioner

Thanks!

Next Meeting: Apr. 20
Monique Woroniak
(Winnipeg Public Library; Information Specialist)

Topic: *"Health Info Checkup: Finding and Evaluating Information Sources About Prostate Cancer"*

Location: Cindy Klassen Recreation Complex at 999 Sargent Avenue

Time: 7 – 9 pm.
Free Admission Everyone Welcome

SHARING IS CARING SHARING IS CARING

The Manitoba Prostate Cancer Support Group offers support to prostate cancer patients but does not recommend any particular treatment modalities, medications or physicians ; such decisions should be made in consultation with your doctor.

MPCSG – active since 1992.

Thought of The Day

" Hospitality is the art of making guests feel like they're at home when you wish they were."

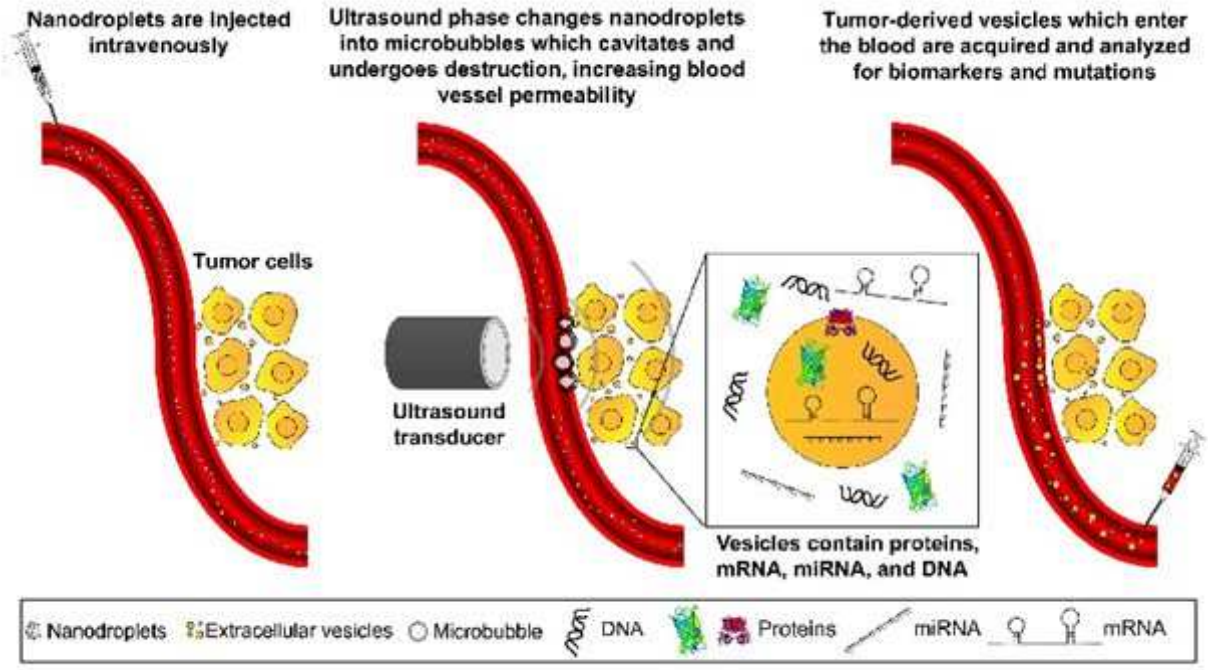
(Continued from page 1)

known technologies and combine them for the first time in a rapid non-invasive procedure which is also as accurate as biopsies.

A simple injection of nanodroplets into the blood starts the procedure, focused ultrasound is then applied to the prostate tumour, and a blood sample then drawn off.

Neither nanodroplets/microbubble or ultrasound have any effect on their own, but when ultrasound is applied to the nanoparticles at the tumour they absorb the energy and expand into microbubbles. These then bump and press against tumour cells knocking off vesicles into the blood stream. When a subsequent blood sample is taken the now numerous specific tumour vesicles in the blood (with their genetic material) can be analysed in the lab to determine the nature of the tumour far more comprehensively than the biopsy. It can also provide personalized information about the tumour and any specific mutations and the optimum treatment chosen for that type of tumour.

Further work is proceeding on increasing the amount of key vesicles released into the bloodstream through the technique, focusing on the biomarkers that are of the most importance.



Overview of ultrasound-mediated tumor EV release. Before tumor sonication, nanodroplets are injected intravenously. High pressure ultrasound is applied to tumor cells which phase-changes nanodroplets into microbubbles

Because the technologies are widely accessible and are already being used in other procedures, Lewis and the team feel the lab trials will soon be performed in clinical trials, and from there become available to medical professionals.

Funding for this research came entirely from philanthropic sources via the Alberta Cancer Foundation and Prostate Cancer Canada.

By Marc Montgomery

english@rcinet.ca

Thursday 15 December, 2016

• • •

" To our online donors from Canada Helps.....thank you for your donations to the Manitoba Prostate Cancer Support Group. It's not possible for us to thank each of you personally, but rest assured that we truly appreciate your generosity. Your contribution makes a difference and helps us provide free support to those prostate cancer patients who want and need it. Every bit helps us to better serve our prostate cancer patient community. Thanks again."

The Board,
Manitoba Prostate Cancer Support Group

Antidepressants Can Stop Prostate Cancer From Spreading To The Bones Where It Kills 90% Of Patients

- Prostate cancer metastasises, or spreads, to the bones in 9 out of 10 fatal cases
- Discovery could pave the way to a treatment for advanced forms of the disease
- Scientists found a reducing a protein in the brain stopped the cancer spreading

Antidepressants could stop the spread of prostate cancer to the bones, which kills 90 per cent of men who die from the disease.

Scientists have found a chemical linked to depression may help prostate cancer invade the bones.

The protein in the brain, which cuts levels of 'happy hormones', was however, blocked by a drug called clorgyline, similar to traditional antidepressants.

New research shows that drugs similar to antidepressants could help to stop the spread of prostate cancer to the bones

New research shows that drugs similar to antidepressants could help to stop the spread of prostate cancer to the bones

Each year, more than 46,600 men in the UK are diagnosed with prostate cancer and about 11,000 die from the disease.

Prostate cancer metastasises, or spreads, to the bones in nine out of 10 fatal cases.

The discovery in mice could pave the way to a treatment for men with advanced prostate cancer.

Lead scientist Dr Jason Wu, from Washington State University in the US, said: 'When we reduced this enzyme expression in prostate cancer cells, we found a lower prostate cancer bone metastasis.

'On the other hand, if we over-express this enzyme in prostate cancer cells, we found increased bone metastasis in mice.

'Our findings provide a rationale to pursue the new use of these 'old' antidepressant drugs to benefit late-stage prostate cancer patients with signs and symptoms of metastasis.'

WHY HEALTHY ADULTS SHOULDN'T TAKE ANTIDEPRESSANTS

Healthy people who take antidepressants are twice as likely to become suicidal and violent, researchers claimed in October.

The first ever review of trials of antidepressants taken by healthy adults, who have no signs of a mental disorder, concluded the pills doubled harms related to suicide and violence.

The analysis, published in the Journal of the Royal Society of Medicine, examined 13 previous trials of antidepressant drugs, involving 612 patients.

The researchers, from the Nordic Cochrane Centre and the University of Copenhagen, claimed the original papers underestimated the risk of suicide and other harms.

The protein MAOA has long been associated with depression, as it cuts levels of mood-regulating hormones in the brain including serotonin and dopamine.

Older types of antidepressants were designed to target it.

Scientists have now found it activates signals which make it easier for prostate cancer tumour cells to grow in bone. The findings appear in the journal Cancer Cell.

Dr Wu acknowledged that there had been no clinical studies reporting lower rates of prostate cancer in people taking antidepressants.

He added: 'Our studies provide promising results in mice, which merit further investigation, such as adjusting the formulation, dose and delivery route of MAOA inhibitors, prior to ultimate clinical application.'

Dr Iain Frame, director of research at Prostate Cancer UK, said: 'It's good to see research like this, exploring different avenues and schools of thought.

'However, we're an incredibly long way off knowing whether drugs like this could put a stop to prostate cancer cells spreading to the bone in reality.

'Many more years of research are needed before we could say with any confidence whether the ideas proposed here would actually make a difference to men.'

By VICTORIA ALLEN

SCIENCE CORRESPONDENT FOR THE DAILY MAIL

14 March 2017

https://www.medicalworldnigeria.com/2017/03/research-antidepressants-can-stop-prostate-cancer-from-spreading-to-the-bones-where-it-kills-90-of-patients#.WMlhePnyu00

• • •

How to Manage Side Effects

By Susan Bernstein

Faced with choices to treat his prostate cancer, Tim Henson chose radiation and injecting a drug that lowers his testosterone, the hormone that feeds his tumor, to almost zero.

Three months into his treatment, "I'm thinking dealing with hormone therapy is going to be the worst part of it," says Henson, a 57-year-old dentist in San Antonio, TX. He has hot flashes, night sweats, sudden crying jags, "brain fog," and a total lack of sexual desire.

"I mean, I was very sexually active for a guy my age, and the loss of that was hard," he says. "Any guy can say that since the age of 12, he's had sexual thoughts at least 20 times a day. Now my screen is totally blank."

Luckily, Henson's supportive, long-term girlfriend, Julie, helps him find ways to deal with some of these side effects.

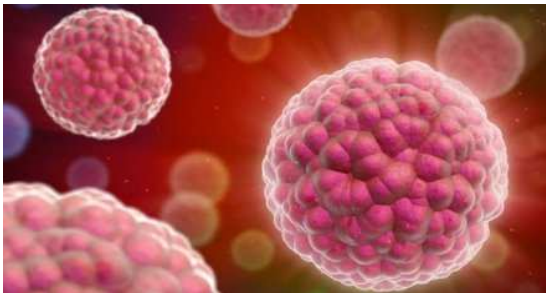
"She went through menopause five years ago, so she told me some ways to deal with hot flashes, like putting my hands on a cold surface or even a cold glass of water for a fast cool-down," he says.

Mostly, he worries about the effect his lost interest in sex will have on their relationship. "We just try to maintain intimacy as much as you can up to intercourse."

What Side Effects Can I Expect?

All prostate cancer treatments have possible side effects, says Sean Cavanaugh, MD, chief of radiation oncology at Cancer Treatment Centers of America in Atlanta.

Even if your cancer is so early you choose to "just watch and wait, you have the psychological side effects of waiting to see what happens with your cancer," he says.



More aggressive treatments, like surgery, beam radiation, brachytherapy or radioactive "seeds," or hormone therapy, could cause short-term side effects like:

- Sexual problems, like impotence, trouble keeping an erection or getting to orgasm, or loss of desire for sex
- Leaking urine or stool
- Frequent or burning urination
- Diarrhea or constipation
- Weakened bones

Think Intimacy, Not Just Sex

Sexual problems may not go away after treatment stops. "Even though prostate cancer doesn't always mean the end to your sex life, it does mean a change," Cavanaugh says.

If you just can't get an erection or trouble keeping one, medications can help. Nerve damage from surgery or loss of desire for sex with hormones is much harder to treat, Cavanaugh says.

He suggests "intimacy rehabilitation." Spend time alone with your partner a few times a week. Focus on physical and emotional closeness but without intercourse as a definition of success.

"We know that a close, loving relationship doesn't require the sexual act, but intimacy. Spend sexy time together," he says. "Take the word sex out of the conversation, and define intimacy as rewarding time together that's physically close. There are definitely some pep talks that guys need to hear."

Bladder or Bowel Problems

After surgery, you may have a hard time with bladder or bowel control. Incontinence pads or disposable underwear can catch leaks. "Most men don't want to think about this at all," Cavanaugh says.

If you can't imagine wearing pads, try Kegel exercises to strengthen muscles around your urethra. Catheters can collect leaked urine so you can pour it out later. Compression devices can help you stop urine flow for a short time until you can get to a bathroom.

Don't cut back on drinking fluids because you're afraid of leaks, says Nagi Kumar, clinical nutritionist at Moffitt Cancer Center in Tampa, FL. Constipation or diarrhea after radiation are also unpredictable and embarrassing, she says. You can try an over-the-counter med to ease diarrhea.

You may need to change your diet to get regular, she says. Eat high-fiber foods like fresh vegetables or whole grains, or drink a spoonful of fiber powder in orange juice at night. Probiotic foods like yogurt or kefir, and prebiotic foods like nuts or beans, can help, too.

Protect Your Bones

Hormone therapy can weaken your bones, Kumar says. To keep them strong, she suggests:

(Continued on page 5)

(Continued from page 4)

- Take supplements of vitamin A, vitamin D, and calcium. Choose products with magnesium and phosphorus - they help your bones absorb what they need.
- Do 45 minutes of daily exercise, including cardio, strength, and flexibility. This can boost your energy and mood.

Soothe Your Spirit

Prostate cancer treatment and its side effects can make you feel helpless or depressed, Kumar says. She connects people with cancer survivors for one-on-one chats where they can talk openly about treatment side effects. There's also a support group called Us TOO - you can find it online.

Focus on what you can do to feel better, not what you can't, Cavanaugh says. "This can help you return to a positive frame of mind and being back in control of your life."

Reach out to others so you don't feel alone, says Henson, who updates his treatment progress for friends on a Facebook page. In turn, they posted photos of themselves wearing blue rubber bracelets that say, "Cheers for Tim!"

"That was incredibly emotional and uplifting," he says. "It made me tear up. Support is crucial."

WebMD Feature Reviewed by Stuart Bergman, MD on February 05, 2016

SOURCES:
Sean Cavanaugh, MD, chief of radiation oncology, Cancer Treatment Centers of America Southeast Regional Medical Center, Atlanta, GA.
Nagi Kumar, PhD, clinical nutritionist, Moffitt Cancer Center, Tampa, FL.
Tim Henson, DDS, San Antonio, TX.
National Cancer Institute: "Prostate Cancer Treatment."
American Cancer Society: "Managing Incontinence for Men With Cancer."

http://www.webmd.com/prostate-cancer/features/prostate-cancer-drug-side-effects

• • •

New Technique Identifies 10 Times More DNA Variations Associated with Prostate Cancer

New Technique Identifies 10 Times More DNA Variations Associated with Prostate Cancer

A new approach to detecting DNA variations that may be associated with prostate cancer has found 10 times as many variations as the most common approach, according to a study.

The research, "Next-Generation Mapping Reveals Novel Large Genomic Rearrangements In Prostate Cancer," was published in Oncotarget.

Complex rearrangements of structures in DNA can trigger the development of prostate cancer, research has shown. Detecting the changes can help doctors design better therapies for their patients.

Next-generation mapping (NGM) is a new technology that allows scientists to analyze larger chunks of DNA than the older approach of next-generation sequencing (NGS). NGM has a wider scope because NGS sequences DNA bit by bit looking for single mutations.

Researchers compared the two techniques' ability to detect DNA changes that lead to prostate cancer. They used the Bionano's Irys System to perform NGM, and the Illumina X10 platform to perform NGS.

NGM identified 10 times more large structural variations in DNA associated with prostate cancer than NGS.

Half of the structural variations that NGM revealed were within or near genes associated with prostate cancer onset. Only half of 1 percent of the variations that NGS detected were in or near such genes.

Researchers validated 94 percent of the structural variations with laboratory experiments.

"These findings validate the importance of Bionano's NGM and demonstrate that NGS is not enough to identify all genome variations that may cause disease in patients," Vanessa Hayes, the senior author of the study, said in a news release. "This study has generated promising results that help in understanding previously undetected prostate cancer genomic driver events and progression. We expect next-generation mapping to be critical in obtaining a more complete clinical picture of cancer patients at the Garvan Institute."

"We are excited by these data obtained for complex human genomic rearrangements in prostate cancer," said Erik Holmlin, PhD, CEO of Bionano Genomics. "Cancer is one of the most studied diseases, yet there is an urgent need to find more relevant genomic information that can aid in the development of effective therapies and strategies for precise patient management. With the use of our NGM technique in cancer and other clinical translational studies, researchers can discover the large [structural variations] that would be missed with NGS alone."

MARCH 10, 2017 Joana Fernandes, PhD

https://prostatecancernewstoday.com/2017/03/10/prostate-cancer-researchers-find-new-dna-detection-tool-much-better/

• • •

How Nerve-Sparing Technology Boosts Recovery, Lowers Debilitating Side Effects

New Delhi: When a man is diagnosed with prostate cancer , the doctor and the patient have two major concerns. The first is cancer-free survival. The second is reducing the complications of bladder control (incontinence) and impotence, two side effects of prostate cancer surgery that patients fear the most.

These side effects are often inevitable for at least a short period of time. For an unlucky some, these side effects can last their lifetime, taking a toll on both their psychological and physical well-being.

Reduced side-effects and improved recovery time have made robotically-assisted radical prostatectomies (RARP) hugely popular in recent years. Since the procedure is less invasive, it reduces blood loss and offers a better quality of life post-surgery over the traditional "open" techniques.

In a robotic surgery , the operating surgeon sits behind a console where she/he views the surgical field via a small camera inserted inside the patient's abdomen. At the same time, a patient-side team of surgeons, physician's assistants and nurses help the operating surgeon remotely manoeuvre surgical tools within the body. Since the camera magnifies and presents a virtual 3D-field, the surgeon can better visualise the surrounding area of the prostate.

Nerve Sparing

Even during a robotic surgery, however, a patient's potential for quick recovery from radical prostatectomy depends on a multitude of other factors – most notably the nature of the cancer and the surgeon's skill at sparing the nerves.

A patient's ability to retain his sexual function and urinary continence after surgery depends on the unique anatomy of nerves around the prostate. The size of a large walnut, the prostate gland sits between the bladder and the penis, surrounding the urethra like a donut. On either side of the gland, one could imagine nerves like a hammock or a spider web, branched and bundled to form a surrounding network. When the brain tells these "branches" to innervate the surrounding tissues, this allows a man to have an erection or control urination.

A surgeon removing the prostate from the body must skilfully cut away the tissue lining the sides of the prostate – called fascia – where a web of nerves is embedded, which puts them at risk of injury. About 30% of the time, a tumour encroaches so close to the edge of the prostate that the surgeon needs millimeter-conscious precision to preserve the plexus of nerves with the least mechanical or thermal damage. The nerves don't just need to be saved, they need to be protected so they retain their functional purpose.

The robot's magnified 3D-field offers the surgeon more control over movements and technique. This advantage, combined with a delicate appreciation of the patient's anatomy, is what we call ART – or "Anatomical Robotic Technique."

Albeit the procedure's complexity, a surgeon's task is straightforward: to balance the extent of nerve-sparing against the risk of cancer being left behind in the body.

A Surgeon's Technique

Relying on different pieces of information about the patient and the cancer, the surgeon takes steps to ensure that nerve-sparing is done properly. The first step in a nerve-sparing RARP is individualisation, and it starts with determining the patient's personal preferences and whether their expectations can be met

(Continued on page 7)

(Continued from page 6)
within medical limits. If a patient has already experienced impotency or incontinence, the surgeon prioritises minimising the chance of the cancer recurring rather than sparing the patient's nerves. The surgeon also takes accounts for the stage of cancer and intel provided by tests such as PSA, biopsy and MRI imaging.

Next, the surgeon plans for the surgery based on the patient's medical history, personal attributes, state of health and distinct details of his anatomy. The size of the prostate, genetic make-up, and even the narrowness of a patient's pelvis play a role in how the prostate will be removed.

Once the procedure begins, unexpected issues or challenges may occur, such as the patient's pelvis having more inflamed tissue or the cancer being more aggressive than what the tests indicated. Or the surgeon may discover that the tumor is bulging slightly more from the prostate than he anticipated. The surgeon then takes the next step in modifying their strategy by making certain adjustments, such as leaving more cancerous tissue on the prostate before removing it from the body.

Once the prostate has been removed, a pathologist will examine it in a laboratory to determine whether any cancer is left in the body. This technique is called "NeuroSAFE," whereby the surgeon must then react in real-time and continue operating according to the test results. If the "margin" of prostate tissue is positive for cancer and the patient is still at risk for disease, the surgeon will remove more tissue from the area.

All of these steps in conjunction can be used by surgeons to carryout a successful RARP, and leave a patient with the highest chance of recovering from incontinence and impotency.

After Surgery

Although most patients are well enough to walk the same evening of their surgery, they must deal with their expectations according to what their doctors tell them. While some studies report that RARPs produce similar results to open prostatectomies, they fail to take into account that the experience, knowledge and ART-ful skill of the surgeon matter tremendously. Patients should trust their surgeon's judgment. As importantly, they must adopt a healthy lifestyle that includes of proper diet, exercise and not smoking to complement the healing process.

Mar 17, 2017
Dr Ashutosh K Tewari
and Sonya K Prasad

Dr Ashutosh K. Tewari is the chairman of urology at the Icahn School of Medicine at Mount Sinai Hospital in New York City;

Sonya K. Prasad is a clinical research assistant at Mount Sinai Hospital

http://www.hindustantimes.com/world-news/prostate-cancer-how-nerve-sparing-technology-boosts-recovery-lowers-debilitating-side-effects/story-7QreI4GY2jivhLcanfZDBI.html

• • •

"Raising Awareness.....Spreading the Word"

The Manitoba Prostate Cancer Support Group works to increase education, awareness and support for the prostate cancer community. These services are provided through a variety of activities and are available without cost to the existing patient population as well as to the public at large.

Raising awareness is especially important to encourage more men, who may already have prostate cancer but don't yet know about it, to get checked.

Early detection makes all the difference in effecting a cure. As part of our efforts to raise awareness our group provides speakers to community groups, as well as attending "health fairs" in shopping malls and the like.

If your group would like to have a speaker talk about prostate cancer contact board member Pat Feschuk (Special Events organizer; telephone 204-654-3898; or email at lizpat@shaw.ca) to make arrangements.

• • •

Return undeliverable Canadian addresses to
Manitoba Prostate Cancer Support Group
315-971 Corydon Ave.,
Winnipeg R3M 3S7

Publications Agreement
40037332

MANITOBA PROSTATE CANCER SUPPORT GROUP TAX DEDUCTIBLE DONATION

NAME:_____

ADDRESS:_____ POSTAL CODE_____

THIS GIFT IS IN MEMORY/HONOUR OF_____ PLEASE SEND NOTIFICATION TO:_____

NAME:_____

ADDRESS:_____ POSTAL CODE_____

***Make payment to**: Manitoba Prostate Cancer Support Group;*
Box 315 – 971 Corydon Ave., Winnipeg, Manitoba, R3M 3S7
**A tax deductible receipt will be issued. Charity number: 88907 1882 RR0001*

***Credit Card** donations can be made by going to our website at: www.manpros.org and clicking on the donate tab. Canada Helps will issue a tax receipt. **Amount:** $25 $50 $75 $100 Other_____*

Email - manpros@mts.net ALL MEMBER INFORMATION IS KEPT CONFIDENTIAL
Answering Machine - (204) 989-3433 ***Help us lower our costs :***
Receive this newsletter by email ~ Please notify us and we'll make the changes. *Thank-you*

2017 MEETINGS

Apr. 20 Monique Woroniak
(Winnipeg Public Library; Information Specialist)
"Health Info Checkup: Finding and Evaluating Information Sources About Prostate Cancer"

May 18 Dr. Kevin Saunders
"Managing Prostate Cancer Along With Other Health Issues in Elderly Males"

All meetings (except September)
will be held at :
Cindy Klassen Recreation Complex
at 999 Sargent Avenue

All meetings are 7 – 9 pm.
Everyone Welcome

MPCSG BOARD

Jim Leddy - Outreach	(204) 326-1477
Al Petkau - Treasurer	(204) 736-4398
Betty O'Grodnik – Secretary	(204) 661-8549
Jos Borsa - Chair	(204) 219-7726
Liz Feschuk - Special Projects	(204) 654-3898
Ernie Schade – Member at Large	(204) 489-1648
Pat Feschuk – Special Events	(204) 654-3898
John O'Grodnik - Vice Chair	(204) 661-8549