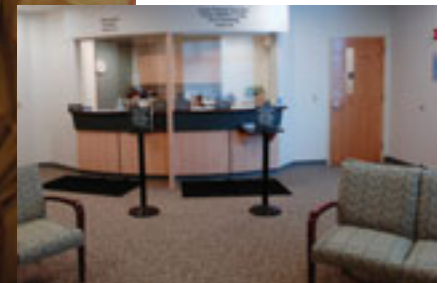


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- LINK BETWEEN MIGRAINES AND HEART CONDITION CONSIDERED
- NEW CLINIC FOR ENDEMIC PITUITARY PROBLEMS
- ECZEMA PATIENTS SOUGHT FOR STUDY



Photos by Lisa B. Hughes/Democrat and Chronicle



Kelli and Bob Kloch, parents of Aidan, are grateful to the Strong Fertility Center, now located in The Women's Health Pavilion.

Specialty Services Have New Home at The Women's Health Pavilion

Strong Memorial and Highland hospitals have partnered to open The Women's Health Pavilion, a destination for world-class women's specialty care located at 500 Red Creek Drive in Henrietta.

Designed to improve access to the hospitals' advanced services for women, The Women's Health Pavilion is home to:

- Highland Breast Imaging Center
- Strong Health Midwifery Group
- Strong Gynecologic Specialties
- Strong Fertility Center
- Strong Perinatal Associates
- Strong Ob/Gyn Ultrasound
- Strong Pelvic Health and Continence Specialties

"Our vision was to design a center devoted to women that would be comfortable and make it easy for them to access world-class experts in specialty services they may need throughout their lifetime," said **James R. Woods Jr., M.D.**, Henry A. Thiede Professor and Chair, Department of Obstetrics and Gynecology, University of Rochester Medical Center and Strong Memorial Hospital.

"Women travel to Rochester from across the country seeking the care of some of our specialists. We are proud to have a team of internationally recognized experts here to care for women in our community and its surrounding regions," Woods said. "Now, in

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our new home at The Women's Health Pavilion, we have the optimal setting for offering the care they need in a warm, inviting place that incorporates the latest technology and the newest techniques."

Long recognized in the Rochester community for its commitment to women's health, Highland Hospital's breast care services at the new location are complemented by all-digital, state-of-the-art imaging.

"The Women's Health Pavilion gives us the opportunity to build upon our reputation as a community leader in breast care," said **Laurie W. Ernest, M.S., R.N.C.**, director, Ambulatory Care Services and director, Ambulatory Nursing for Highland Hospital.

The Women's Health Pavilion offers unique specialty services to the community including:

- the area's only all-digital, full-service breast imaging and diagnostic center
- a practice among the nation's first to combine urogynecology, urology and colorectal surgery to help women with problems related to pelvic-floor health
- a regional center for high-risk pregnancy care
- specialized services for fertility, pelvic pain, menopause, adolescent gynecology.

Strong Perinatal Associates will continue to provide ob/gyn ultrasound services at Strong Memorial, while all outpatient care provided by the various women's specialty

groups will now occur at The Women's Health Pavilion. Strong Health Midwifery Group continues its services at 905 Culver Road in addition to the new location. Primary ob/gyn care, offered by the Women's Health Practice at Strong, remains on the fifth floor of the Strong's Ambulatory Care Facility.

For information about The Women's Health Pavilion, please call (585) 275-2838.



How to Reach The Women's Health Pavilion

- General Information: (585) 275-2838
 Strong Gynecologic Specialties: (585) 487-3420
 Strong Fertility Center: (585) 487-3378
 Strong Perinatal Associates: (585) 487-3350
 Strong Ob/Gyn Ultrasound: (585) 487-3350
 Strong Pelvic Health and Continence Specialties: (585) 487-3400
 Highland Breast Imaging Center: (585) 487-3300
 Strong Health Midwifery Group: (585) 275-7892

New Breast CT



The Cone Beam Breast Computed Tomography scanner produces 3D pictures of breast anatomy.

University of Rochester Medical Center researchers have created a new imaging system that showed in a pilot study it could capture images equal to or better than mammography.

The Cone Beam Breast Computed Tomography (CBBCT) scanner takes 360-degree views of breast anatomy, without having to compress the sensitive tissue. It produces three-dimensional pictures, which are designed to distinguish benign lesions and calcifications from tiny cancers that are sometimes hidden within dense tissue. Also, the CBBCT system clearly displays tissue around the ribs and outer breast toward the armpit, where 50 percent of cancers are found. Getting the tissue on the outer edges of the breast to show up on a conventional mammogram film is one reason why technologists must pull and flatten the breast.

The pilot study is producing exciting results, which were presented at the Radiological Society of North America annual meeting in Chicago in November 2006.

"We have one case in which a cancer shows up phenomenally well using this new imaging system, whereas when you look at the same lesion on a mammogram it is hard to detect," said **Avice O'Connell, M.D.**, director of women's imaging for the University of Rochester Medical Center and co-principal investigator on the study.

The University is conducting its first clinical trial to evaluate the CBBCT against traditional mammography, which is the best technology currently available and universally accessible to women, but is only 85 percent accurate in most cases.

Scanner Rivals Mammography

Researchers began by screening 20 volunteers who had normal mammograms. The goal was to simply demonstrate whether the CBBCT could adequately image the breast. An additional group of women were scanned because they had either palpable masses or suspicious mammograms. In those cases, researchers compared the CBBCT to the typical diagnostic imaging workup, to assess cancerous and benign abnormalities before a biopsy was done. In this group, the researchers discovered that the CBBCT images could delineate breast disease as well as mammography film.

Researchers are midway through the pilot study; they continue to enroll qualifying participants. In addition, they are working on a protocol to investigate contrast-enhanced breast CT scans, and hope to begin that clinical trial in May or June. Finally, the researchers have also initiated a new study to investigate the use of the CBBCT for extremities such as hand/wrist, foot/ankle, knee and elbow.

'Snowman in a Snowstorm'

The race to replace mammography is all about finding hard-to-detect cancers more consistently. Much of the research focuses on digital imaging or on better follow-up testing once a conventional mammogram raises questions. The biggest challenge for radiologists is to see lesions that are less than 1 centimeter, when cancer is more curable, within dense breast tissue.

But even larger tumors can hide in dense tissue, which is common among pre-menopausal women, thin women, and those who are genetically predisposed to dense breasts.

Breasts with fatty tissue are easier to screen because normal, healthy fat shows up black on a mammogram. Lesions usually stand out plainly as white spots with jagged borders or tentacles, or as white dots that characterize calcifications. If there is any question about whether a white spot is a tumor or a cyst, an ultrasound can usually settle it before a biopsy provides the official diagnosis.

But when doctors analyze a breast with dense tissue on mammography film, the image is less clear. White blotches and spidery white streaks, or fibro glandular densities, permeate the image, hiding small tumors in some cases. "It's like trying to find a snowman in a snowstorm," O'Connell said.

Breast cancer is the most common non-skin cancer in American women, with an estimated 270,000 new cases expected to be diagnosed this year. Early detection is important to survival.

When a malignant tumor grows to a certain size, it is more likely that cancer cells have broken away and spread to other sites. A key advantage of the CBBCT scanner, researchers said, is the ability to produce three-dimensional images that radiologists can pull up on a computer screen and then manipulate—like spinning a globe—to view

tissue from many different angles. This allows them to look deep within the breast and beyond the tangle of fibro glandular streaks.

By comparison, interpreting a mammogram is like looking at an X-ray; it cannot be manipulated to observe tissue overlays or the back of the breasts near the chest wall. Digital mammography has a wider range of capture data and gives more information about dense tissue, but it still only provides two-dimensional images.

Comfort is Extra Benefit

The CBBCT system consists of a cushioned exam table with a cutout in the middle. A woman lies on her belly, suspending her breasts one at a time through the opening. The CBBCT takes 300 images by circling the breasts for about 10 seconds, emitting a radiation dose that's comparable to mammography. The X-ray source is positioned to avoid radiation exposure to the chest tissue beyond the breast.

The University of Rochester holds several patents on the Cone Beam system, which was invented by **Ruola Ning, Ph.D.**, professor of Radiology at the Medical Center and founder of the Rochester-based imaging start-up company, Koning Corporation.

For medical questions about CBBCT, providers may contact O'Connell at (585) 487-3300. Questions regarding the technology may be referred to David Conover, director of research and development for Koning Corp., at (585) 275-1787.



Study Considers Link Between Migraines, Congenital Heart Condition

Cardiac and neuro-ophthalmic specialists at the University of Rochester Medical Center have teamed up for a research study that considers whether closing a hole in patients' hearts can influence the occurrence of migraine headaches.

The clinical trial is being conducted by neuro-ophthalmologist **Deborah I. Friedman, M.D.**, of the University of Rochester Eye Institute, and cardiologist **Frederick S. Ling, M.D.**, director of the Cardiac Catheterization Laboratory. Rochester is the only site in upstate New York to offer the study.

The PREMIUM trial compares an investigational device that fixes the hole in patients' hearts, a congenital condition called Patent Foramen Ovale (PFO), to medical management already being utilized by patients who are currently taking medications for migraines, evaluating if the device reduces the incidence of debilitating migraine headaches that may occur as a result of the heart condition.

Up to 25 percent of the adult population in the United States has PFO. One recent study showed that 60 percent of migraine sufferers have evidence of PFO. Normally, the foramen ovale closes at or shortly after birth. When it remains open, the blood from the right heart chamber can cross through the PFO, into the left side of the heart and then to the brain, carrying chemicals that may cause migraine headaches. This may be the reason why some individuals with PFO suffer from migraines.

The link between PFO and migraine was first suspected more than 15 years ago, when scuba divers having their PFO closed for decompression sickness noticed their migraines improved after the procedure. Similar observations in patients with strokes and PFO led to several studies to see whether or not the procedure was beneficial for migraine.

"This study tests a new way of thinking about migraine treatment," Friedman said. "Currently, migraine therapy rests largely on medications used to prevent migraine and to treat individual migraines. We know there is also a genetic component, as migraine tends to run in families." If PFO closure can help patients with debilitating migraine headaches, it will be a major step forward in migraine therapy, Friedman said. However, if the procedure proves to be ineffective, we can avoid exposing our patients to unnecessary risk in the future.

Individuals eligible for the study will be randomized to one of two groups: a group that will be only on medications for migraines, or a group that will receive an implanted device to close the hole in the heart. The current standard of care is medication.



Deborah I. Friedman, M.D.



Frederick S. Ling, M.D.

The investigational device, the AMPLATZER PFO Occluder, is a self-expandable disc made from wire mesh and fabric that is put in place using a catheter. It closes the hole in the heart and prevents inappropriate blood flow. Most PFOs are not repaired because they are benign and cause minimal blood flow across the defect.

Potential study patients are evaluated for a PFO through ultrasound testing. Initially, a noninvasive transcranial Doppler is done. If the Doppler shows a large PFO, an echocardiogram will be done.

Volunteers accepted into the study are then scheduled for a visit to the catheterization laboratory where they will have a final confirmation of the PFO through an intracardiac echo and then be randomized into the study. Each volunteer is randomly assigned to either receive the device at that time and to continue on their regular medications, or to continue only on their regular medications. Patients will not know whether the device is placed during their visit to the catheterization lab, thus they will not know to which group they are assigned.

Patients stay overnight in the hospital. Follow-up visits take place once a month for six months, then during the eighth, 10th and 12th months. There will also be annual exams after that through the end of the five-year study.

A preliminary British study of 150 refractory migraine patients with PFO comparing PFO closure to medication therapy found that PFO closure did not cure migraines but was more effective than medication therapy in reducing headache frequency and burden.

For more information about the study, please call (585) 273-3085.

Clinic Addresses Overlooked, Yet Endemic, Pituitary Problems

A neurosurgeon and endocrinologist are joining forces to streamline and improve care for patients suffering from pituitary adenomas, an affliction which can affect up to 20 percent of the population. The Neuro-Endocrinology Clinic is the first of its kind in upstate New York, where two specialists review test results and discuss treatment options with patients at the same time, in the same room.

Diagnosing pituitary adenomas can be very difficult, said endocrinologist **Laura M. Calvi, M.D.** In addition, some of the diseases caused by pituitary adenomas are extremely rare and require a specialized team approach by sub-specialists who have expertise in detecting and managing them.

“While some pituitary adenomas may never cause a health problem for some people, others can trigger a slew of hyper- or hypo-hormonal responses that can manifest in obvious symptoms, or the symptoms can accrue gradually,” Calvi said. “Factor in varying degrees of adenomas size and location, and you have a bevy of symptoms that physicians must tease out and understand before landing on a correct diagnosis.”

According to **G. Edward Vates, M.D., Ph.D.**, the neurosurgeon who makes up the other half of the physician team running the clinic, symptoms often can be overlooked, or mistakenly attributed to other ailments.

“For example, with the popularity of erectile dysfunction drugs, men may be taking the medication for impotence, when in fact they have a pituitary adenoma that is suppressing the normal secretion of testosterone,” Vates said. “The diagnosis and management of pituitary and other neuro-endocrine disorders can be quite complicated, and requires the efforts of doctors from multiple disciplines.”

Vates, an assistant professor in the Department of Neurosurgery, championed the multidisciplinary clinic concept when he arrived from the University of California at San Francisco in 2004. He quickly found his way to Calvi, an assistant professor of Medicine in the Division of Endocrinology. Calvi received her training in neuroendocrinology at Massachusetts General Hospital in Boston, a busy referral center where pituitary cases are also evaluated in a multidisciplinary setting. She and Vates agreed that such a multi-disciplinary approach would be the best way to provide care to these patients.

“The Neuro-Endocrine Clinic allows us to have wide-ranging discussions with our patients, fully exploring all treatment options, and the pros and cons of each,” Vates added. “The patient has the benefit of hearing how two different specialists arrive at treatment recommendations.”

It also is a convenient and efficient process for patients, who previously could spend months taking tests and seeing

various physicians to learn about all the different options available to treat their particular condition.

“Now, when patients call to make an appointment, they are given a series of tests to complete before we meet with them,” Calvi said. “We have all the information we need to fully understand their medical condition, and can discuss all the options at the same time, together.”

New Surgical Technique

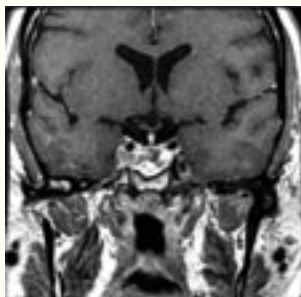
If patients are surgical candidates, Vates also can review with them a new, less-invasive procedure, where instruments are funneled down the nasal passage to reach the tumor.

“Smaller instruments and better imaging allow us to safely and efficiently remove pituitary adenomas in a way that is less painful, less disfiguring, and with equal assurance that the adenoma can be removed completely with very low risk of recurrence,” Vates said. “In addition, it allows for a much quicker recovery.”

According to Vates, who is the region’s only surgeon trained in performing this minimally invasive procedure, more than half of patients go home the first day after surgery, and almost 90 percent go home within 48 hours of surgery.

Surgery is not an option for all patients. Vates recommends first exploring medical management unless obvious symptoms such as loss of peripheral vision or major changes in pituitary function are present.

For more information, please call (585) 273-3551.



Pituitary Adenomas at a Glance

Because the pituitary gland secretes many different hormones, and not all pituitary adenomas secrete hormones, the symptoms of a pituitary adenoma can be quite variable and difficult to interpret. Below is a list of the most common tumors:

Endocrine-Inactive Adenomas

These adenomas do not secrete hormones. Symptoms typically are caused by its size, and can include decreased peripheral vision, headaches, or nausea.

Endocrine-Active Adenomas

These adenomas secrete a particular hormone, causing symptoms related to elevated levels of that particular hormone. The most common types of ailments caused by these adenomas include:

- **Giantism and Acromegaly:** Hypersecretion of growth hormone, causing extreme growth spurts in children or soft tissue growth in adults
- **Hyperprolactinemia:** Hypersecretion of prolactin, causing women who are not pregnant to produce breast milk and to stop menstruating. In men, it can cause impotence or breast enlargement.
- **Cushing's Disease:** Hyperproduction of ACTH stimulates overproduction of glucocorticoids, causing a malignant form of diabetes, as well as uneven build-up of fatty tissue on the face, back and chest, and osteoporosis.

Eczema Patients Needed for Studies to Make Smallpox Vaccine Safer

People of all ages with atopic dermatitis, also known as AD or eczema, are needed for studies aimed at making smallpox vaccinations safer.

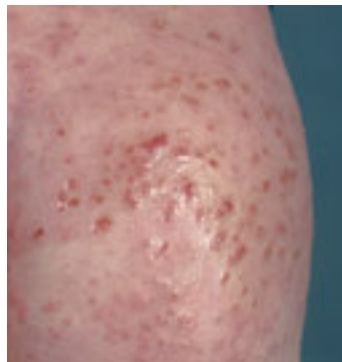
Dermatology researchers, including co-principal investigator **Lisa A. Beck, M.D.**, are currently enrolling eczema sufferers in studies to determine why they are more likely to get viral skin infections, and also to identify a genetic basis for AD. Funded by the National Institutes of Health, the research is driven by evidence that people who have AD are susceptible to eczema vaccinatum, a serious and potentially fatal skin disease caused by exposure to the smallpox vaccine.

The Atopic Dermatitis and Vaccinia Network (ADVN) is building a registry of people with a history of AD to participate in these studies, said Beck, an associate professor in the Department of Dermatology and the Division of Allergy, Immunology and Rheumatology at the University of Rochester Medical Center. Other participating ADVN centers include National Jewish Medical and Research Center (Denver), Johns Hopkins University, Oregon Health Sciences University, University of California San Diego, and Children's Hospital Boston.

Smallpox vaccination of the general population was stopped in the U.S. in 1972 because the risk of smallpox was deemed to be very low even though cases were still observed in Africa and India. In 1980, the World Health Organization declared the earth free of naturally occurring smallpox. As a result, most people today are not protected from the smallpox virus.

"Today, the risk of getting smallpox from a bioterrorist act may make smallpox vaccinations necessary again," Beck said. "ADVN's purpose is to understand why people with AD sometimes develop severe complications from this vaccination, and to find ways to protect them from this complication of vaccination and still protect them from smallpox."

Health care providers who see patients with eczema are encouraged to refer them for participation in the studies. Males and females of any race, 1 to 80 years of age, who



Examples of eczema herpeticum, which can affect adults and children.

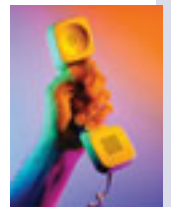
have active AD or have outgrown AD, are eligible to participate. Especially needed are people who have a history of widespread herpes virus infections of the skin called eczema herpeticum, widespread molluscum contagiosum, or eczema vaccinatum.

Study participants will enroll in the registry and receive study-related medical evaluations, education and information about AD, and financial compensation. Some may have blood tests and skin biopsies.

For information on referring patients to the AD studies, please call **Lorianne Stubbs** at (585) 275-0374, email ADVN@URMC.Rochester.edu, or visit www.atopicderm.org.

STRONG CONSULT AND TRANSFER CENTER

A quick, easy, around-the-clock link for physicians to specialty services at Strong Memorial and Highland hospitals. To reach the Strong Consult and Transfer Center, call (800) 499-9298 or, in the Rochester area, call (585) 275-4999.





Clues to Why Some Babies Are Premature May Lie in Genes

Almost 500,000 babies are born too early in the U.S. every year, putting them at risk for lifelong disabilities such as chronic lung disease and developmental delays. Although there has been an increase in multiple births, those early births are only a piece of the 30 percent increase in premature births since the early 1980s.

Golisano Children's Hospital at Strong is part of a five-year National Institutes of Health study of possible genetic links to prematurity. Four centers are participating, including the University of Iowa, the University of Pittsburgh in Pennsylvania, and Wake Forest University in North Carolina.

Chin-To Fong, M.D., chief of pediatric genetics at Golisano Children's Hospital, is leading the effort locally with the help of **Ronnie Guillet, M.D., Ph.D.**, neonatologist at Golisano Children's Hospital, and **Eva Pressman, M.D.**, director of Maternal Fetal Medicine and Obstetrics, University of Rochester Medical Center, Strong Memorial Hospital.

"Imagine knowing that you're more likely to give birth early through a simple blood

test. We may be able to better prevent early births or better prepare for them," Fong said.

Women found to be at risk would receive increased surveillance, such as more frequent prenatal visits, pelvic examinations and ultrasounds to evaluate cervical length, Pressman said. "They may also receive certain pharmaceutical therapies if further studies demonstrate the benefit of therapy."

Delaying delivery for even a few days can dramatically improve the outcome for extremely low birth-weight infants, said Guillet, who is also the nursery director at Highland Hospital. "Survival increases significantly between 23 and 26 weeks and continues to increase, though at a more gradual rate, from 26 weeks to term."

Physicians and their patients could be alerted to be more in tune with the early signs of labor, and patients would be referred to the appropriate hospital. In case specialized care is needed, the baby would already be in a hospital where perinatologists, neonatologists, specially trained staff and equipment are available to stabilize and care for the infant.

Fong's team and his counterparts in the other

Continued on next page

Golisano Physicians Monitor New Vaccines and Whether Others Are Needed

Years of research and testing go into producing vaccines and getting them FDA-approved. Thousands of patients participate and millions of dollars are invested in ensuring the vaccine is effective and safe before it arrives in physician offices. But who checks on vaccines after they are routinely administered to hundreds of thousands of children?

The New Vaccine Surveillance Network, based in Rochester, Nashville and Cincinnati, began providing surveillance for several vaccine-preventable (or potentially vaccine-preventable) childhood infectious diseases in 2000 with funding from the Centers for Disease Control and Prevention. Over the six years the network has been in existence, physicians and laboratories have monitored the rates of viral infections caused by influenza, respiratory syncytial virus, parainfluenza and rotavirus in children seeking care in emergency rooms, children's hospitals, doctors' offices, and clinics in the three participating cities.

The goal is to be able to show whether newly available vaccines are effective in reducing incidents of infections from those viruses, but the surveillance can also point out the need for new recommendations, as well as the occurrence of unrecognized problems with a vaccine. (Preventive vaccines for some of the viruses mentioned above don't yet exist, but the baseline data being collected will help decide whether such vaccines are needed and how best to utilize them.)

This network is the only pediatric one of its kind, and no similar network to monitor adult infections exists.

"It is amazing that big, careful studies, using both clinical and microbiologic data—rather than either one alone—have not been able to be performed before for these infectious diseases," said **Geoffrey Weinberg, M.D.**, pediatric infectious disease expert with Golisano Children's Hospital at Strong. "With our network we can now analyze the exact impact of a new vaccine on infection rates by population. And we can give these accurate data—quickly—to the CDC, so that decisions to modify pediatric vaccine usage may be made in a timely way."

As an example, because of this behind-the-scenes work of Rochester physicians and laboratory technicians, the



CDC and the American Academy of Pediatrics decided to modify routine pediatric flu vaccine recommendations in 2006. Now, children between 6 months and 5 years of age will receive the vaccine, not just those between 6 months and 2 years of age. The recommendations were made after the network provided data that undiagnosed influenza infections in children up to 5 years of age were common, and responsible for many more Emergency Department, clinic and office visits than previously recognized.

Peter Szilagyi, M.D., M.P.H., chief of Ambulatory Pediatrics at Golisano Children's Hospital, and **Caroline Hall, M.D.**, professor of Pediatrics and Medicine, coordinate the testing and analyzing along with Weinberg, but key to the success of the network is the local community.

"The unified system of pediatric care in Rochester, one of the legacies of Elizabeth McAnarney's chairmanship of our department, pretty much puts all pediatricians on the same team, and makes Rochester an ideal place to do this kind of research and monitoring. The pediatricians and family practitioners have been incredibly supportive," Weinberg said. "And just as important are the parents who allow us to gather the information we need for these studies."

The new rotavirus vaccine, which was approved in 2006, will be intensely watched by the network, especially because the first approved vaccine for rotavirus (a different product) was unsuccessful because questions arose about its safety. The network has been studying infection rates among young children since 2005 so it can compare the rates now to those after the new rotavirus vaccine has been widely administered. It will also monitor whether there are any issues with the vaccine's safety

Continued from GCHAS Connection page 1 . . .

centers are recruiting 200 families of premature babies per year for a total of 1,000 families in a five-year period to participate in the study. Locally, this will be done at Golisano Children's Hospital and Highland Hospital.

Family members, including grandparents, enrolled in the study will complete surveys and provide genetic samples with the help of study coordinators **Lauren Smith, M.S.**, and **Amy Mayhew, M.P.H.** Families with a baby born prematurely during the study time frame who have another family member who was born preterm may provide the most interesting information for the project. The higher the

incidence of prematurity in a family, the more likely it is that a genetic link can be identified.

"Right now we don't know if it's the mother or child who is affected or if it's a combination of the two that triggers the premature birth," Fong said. "This research could help us learn who is at highest risk and why, and potentially make a huge impact on the long-term health of these children."

For more information on this study or on services provided by Golisano Children's Hospital's Division of Pediatric Genetics, please call (585) 275-5857.

Pediatric Hypertension and Lipid Clinic Offered

As more children are diagnosed with high blood pressure or unhealthy cholesterol levels, the need for specialized services has grown. Golisano Children's Hospital at Strong has meshed its hypertension and lipid clinics to provide a more integrated and convenient way for families to seek care for their children with high blood pressure, high cholesterol, or both.

"Although the causes and health effects of hypertension and high cholesterol can be very different, the diagnostic tools and treatments are similar," said **Marc Lande, M.D.**, a pediatric nephrologist with Golisano Children's Hospital. "By combining our clinics, families can cut down on the number of appointments they need to make."

Often hypertension and high cholesterol in young children is a family trait, but a growing number are the result of lifestyle.

"The rise in the percentage of children with hypertension parallels the rise in obesity," Lande said. "About 10 percent of overweight kids have hypertension."

There has also been an increase in children diagnosed with high cholesterol, which can be partially attributed to parents getting screened earlier. If parents' blood tests show

significant problems, their children are often tested so that issues can be addressed in childhood when it's easier to make a difference in habits and long-term health.

"The first step is always to try to make changes in diet and exercise if problems are identified," said **Kathleen McGrath, P.N.P.** "Pediatricians and family practitioners often try this route before referring to us."

As the pediatric nurse practitioner with the clinic, McGrath counsels families of children with cholesterol or blood pressure problems to begin with small changes, such as taking walks several times a week or limiting trans fat, saturated fat, juice and soda in their diet. If changes in exercise and dietary habits don't improve the conditions, medications may be considered.

"You want to educate children and their families as much as possible, that what they eat does matter, that whether they exercise does matter," said **Roger Vermilion, M.D.**, pediatric cardiologist with the clinic and the Children's Heart Center. "It's much easier to make these changes as a child than as an adult."

To learn more about the Pediatric Hypertension and Lipid Clinic, please call the Children's Heart Center at (585) 275-6108.

Whole Again: Putting the Pieces Back Together

Plastic surgery isn't just rhinoplasty and liposuction. For kids, plastic surgery can be a chance to walk, wear shorts and feel normal again.

Last September, Bayley Finch, only 5 years old, left his mother's side while they were waiting to cross Angell Road in Silver Creek, about 35 miles south of Buffalo.

"He just darted out into the street, like a flash, and that's when I saw the oncoming SUV," said Robin Finch, Bayley's mother.

Bayley was brought to Erie County Medical Center by Star Flight with an open leg fracture, muscle hanging by its skin and wounds on his left ankle where bone was visible. Bayley was stabilized in Buffalo, but there was still uncertainty about whether he would need an amputation.

The Finches were transferred to Golisano Children's Hospital at Strong, where pediatric plastic surgeon **John Giroto, M.D.**, also director of the Cleft and Craniofacial Anomalies Center and the Pediatric Plastic Surgery Team, outlined a comprehensive treatment plan.

Giroto supervised Bayley's multiple surgeries, many of which were conducted just to stabilize his wounds. **Jonathan Gross, M.D., M.P.H.**, was recruited from Strong Memorial Hospital to work on the orthopaedic end, plating and fixing the broken bones. With **Howard Langstein, M.D.**, a gifted microsurgeon and chief of

Strong's Division of Plastic and Reconstructive Surgery, Giroto's team transferred muscle and skin from Bayley's abdomen to his leg.

Thanks to Giroto and the team of specialists—along with the help of an in-hospital tutor who kept him up to speed in his studies—Bayley is now an energetic first grader who plays in gym class with no restrictions.

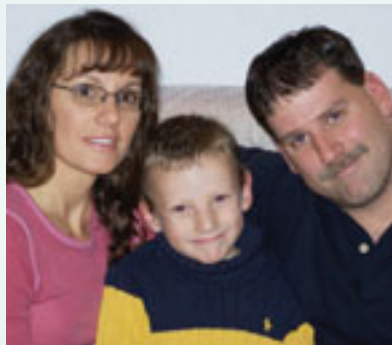
But Finch still held onto guilt. A counselor at the children's hospital helped Finch free herself from some of it. "They asked me, 'if you'd known, would you have grabbed him back quicker, wouldn't you have done everything in your power to prevent it?'" Finch said. "Of course, my answer was yes, I certainly would have, to which the counselor came back with, 'And since there was no way you could have known, it can't possibly be your fault.'"

That made sense, helping her with some of that guilt, Finch said. But the wounds, though improving, were still ghastly reminders, and somehow, they had a cruel way of digging back up all that hurt.

Anticipating this, Giroto and his team committed to follow-up surgeries to continue erasing the scars. The surgeries

continue, even today.

"Healing really happens in two arenas—the physical and the emotional, but they're incredibly intertwined," Giroto said. "That's why we work so passionately to help put the pieces back together so kids and families can go on to live the best quality of life possible, feeling and looking whole again. For Bayley, we wanted him to be able to head off to school with plenty of confidence."



Bayley Finch with his parents.

Children's Belly Fat Increased More Than 65 Percent Since 1990s

Abdominal obesity increased more than 65 percent among boys and almost 70 percent among girls between 1988 and 2004, a significant finding as abdominal obesity has emerged as a better predictor of cardiovascular disease and Type 2 diabetes risk than the more commonly used BMI.

As the first nationally representative study to document the increase in children's belly fat, the study in *Pediatrics* paints a bleak picture for these children who have a higher risk of heart disease, adult-onset diabetes and metabolic syndrome. The good news is that, for children and adolescents, the health effects are often reversible through improved lifestyle for weight loss.

"Kids, teens and adults who have early stages of atherosclerosis in their arteries can have a healthy cardiovascular system again," said **Stephen Cook, M.D.**, an assistant professor of Pediatrics at Golisano Children's Hospital at Strong and an author of the study about childhood abdominal obesity. "Older adults who have plaque build up have a much harder battle, especially if the plaque has calcified."

Measuring waist circumference is not a "vital sign" normally taken in a visit to the doctor. A BMI is commonly calculated at a well visit, but there are limitations to those measurements. A very muscular person may register a high BMI score, even if he is very healthy and has an average waist circumference. On the flip side, a sedentary child may not register a very high BMI score, but if he carries a lot of fat around his middle, he may be at a higher risk for health problems than other children with the same BMI score.

Cook said there is no gold standard yet for how waist circumference should be measured and no consensus yet on the cut-off point for abdominal obesity. However, he added, the study should be a warning for physicians and parents to limit sedentary activities, such as TV and computer time, and to teach and model healthy eating and exercise behaviors.



Stephen Cook, M.D., measures a young patient's waist.

Although increases in BMI scores have raised concerns about U.S. children's short- and long-term health, the increase in the percentage of abdominally obese in children appears to have risen even faster than overweight measured by BMI scores. According to data from the National Health and Nutrition Examination Survey (NHANES) between 1999 and 2004, the percentage of 6- to 11-year-old children with high BMI scores rose about 25 percent (15.1 percent in 1999-2000 to 18.8 percent in 2003-04). But the increase in abdominal obesity of the same group over the same period was even more dramatic, more than 35 percent (14.2 percent in 1999-2000 to 19.2 percent in 2003-04).

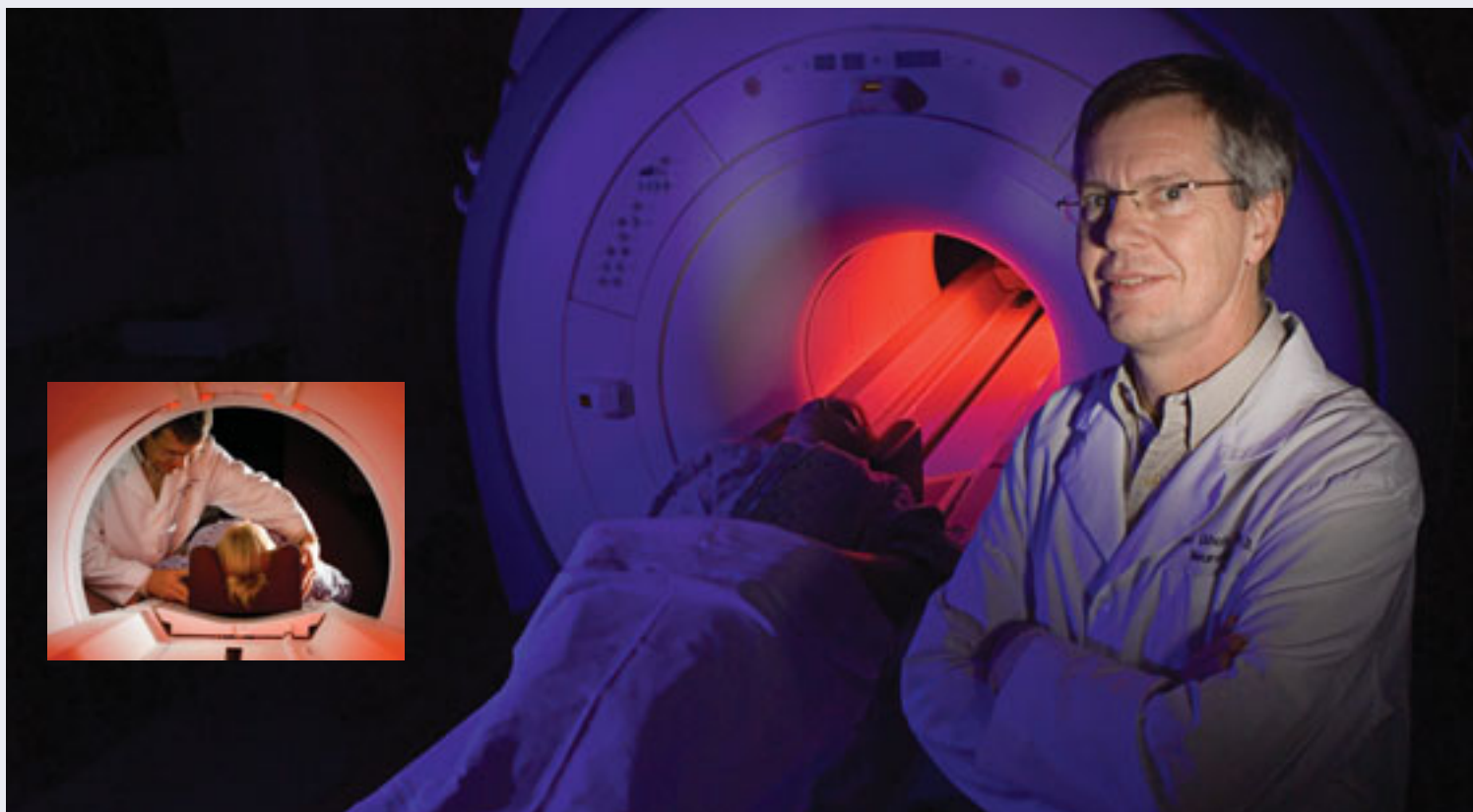
"Those increases only grow more alarming as you tease out specific age groups over longer periods of time," Cook said. "For example, between the 1988-1994 data and the 1999-2004 data, the largest relative increase in the prevalence of abdominal obesity occurred among 2- to 5-year old boys, at 84 percent, and 18- to 19-year-old girls, at 126 percent."



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Heather Hare, Writer

University Imaging Offers First Clinical 3T MRI in Rochester



MRI expert Sven Ekholm, M.D., professor of imaging, with the region's first 3T MRI scanner, located at the University of Rochester Medical Center's University Imaging at Science Park.

The region's first 3 Tesla magnetic resonance scanner is available for clinical use. Located at the University of Rochester Medical Center's University Imaging at Science Park, the new MRI brings with it important tools to help physicians improve the accuracy of diagnoses and treatments of broad categories of diseases including stroke, brain tumors, epilepsy, musculoskeletal issues and heart disease.

With a magnet strength of 3 Tesla, or 3T, the new MRI is the most powerful scanner available to patients today in routine clinical use. The technology has been eagerly awaited by physicians in the Rochester region, who often refer patients to Syracuse or even Detroit for more sophisticated imaging when needed.

David Waldman, M.D., chair of the Department of Imaging Sciences at the Medical Center, compares the images produced by the 3T scanner to viewing a show on high-definition television. This precise imaging will help physicians pinpoint disease earlier, especially certain types of cancer and multiple sclerosis.

"We are proud to continue to bring to Rochester the newest advances in imaging techniques," Waldman said. "The outstanding image quality captured by the 3T MRI will help to provide more accurate and timely diagnoses,

quicker scans for patients, less likelihood of rescans, and will allow us to introduce new and important services such as Functional Imaging."

MRI magnet strength is the key to image clarity; the stronger the magnet, the more clear the image. The 3T MRI magnet is 60,000 times as powerful as the earth's magnetic field.

The new scanner also allows radiologists at the Medical Center to introduce Functional MRI, or fMRI. fMRI allows physicians to non-invasively conduct "brain mapping," or, pinpoint to millimeters areas of the brain that generate specific actions, like speech or movement. This information is critical when planning any type of brain surgery (for epilepsy or tumors, among others) that may impact brain tissue near vital movement or thought areas.

University Imaging at Science Park is home to the most advanced imaging available in the community. In addition to the 3T MRI, the facility also houses the region's first permanent PET/CT Scanner.

For referrals to University Imaging, please call (585) 785-5000.

Tweaking the Treatment for Restless Legs

Current advertisements laud the power of Requip (ropinirole), the first drug approved to treat restless leg syndrome, a condition that interferes with sleep and rest in nearly one of every 10 adults. But if taken too long, the drug can actually backfire, causing symptoms to worsen, according to physicians at the University of Rochester Medical Center who specialize in treating the condition. Treatment that rotates through different types of medications may be needed for many patients.

"It's impossible to tell the whole story in a TV spot just a few seconds long," said **Irene Richard, M.D.**, a movement disorder neurologist at the Medical Center. "When patients come in asking about the treatment, doctors need to know that this is usually not a simple, single-pill solution, despite what they've seen on TV."

In an article published in the December 2006 issue of the *Journal of General Internal Medicine*, Richard and fellow neurologist **Roger Kurlan, M.D.**, warn primary care physicians that they cannot expect long-term success by simply prescribing ropinirole or a similar medication in its class, which works by activating dopamine receptors in the brain. They recommend that physicians may need to rotate some patients through these drugs along with different types of medications.

"The truth is, some of the most common, most effective drugs, including ropinirole and pramipexole, which was recently approved to treat restless leg syndrome, may only work effectively for each person for a limited time," Kurlan said. "After that, this class of drugs—albeit the most—popular, effective, and the only one approved by the FDA for restless leg syndrome—has a regrettable tendency to turn traitor. The medicine can actually begin to worsen symptoms."

In their paper, which was written together with nurse practitioner **Cheryl Deeley**, Richard and Kurlan examine the cases of two older women who have the syndrome. Typically, patients move their legs frequently and are often irked by a life of pacing in the wee morning hours, or in the worst cases, being unable to take road trips or even sit through a movie.

In both cases, and in most other patients the doctors have treated, they have found it helpful to switch the medications that patients receive. Sometimes the medication is no longer useful or helpful. But more often, the approved medications actually began to trigger the symptoms they were supposed to prevent. Richard and Kurlan have seen several patients whose symptoms eased immediately after treatment with the new medications began, but whose symptoms later worsened markedly.

"At this point, you can't just up the dose," Kurlan said, "The drug is part of the problem."

In their report, the doctors say that the new medication for restless leg syndrome worked in one of the patients for seven months before she had to be switched to other medications. In the other, it worked for a few years before switching was required.

In the wake of FDA approval for Requip and Mirapex (pramipexole), along with the attendant heavy advertising, Kurlan and Richard stress the importance to both primary care physicians and patients alike of understanding the risks of relying on these medications for too long.

The solution, Kurlan and Richard say, might be to switch things up at just the right time, rotating treatment through several different classes of drugs as problems arise, or perhaps before augmentation even appears. Finessing an ideal rotation is a challenge because it differs from one patient to the next. How long each medication should be used—or not used effectively—are questions that should be looked at, the doctors say. In one of the cases covered in the report in the *Journal of General Internal Medicine*, a short break from the new medications allowed doctors to use them effectively for four more months, while in the other, the break afforded just two more months of relief before the patient needed to again be switched to another treatment.

Previous studies typically have not monitored for the problem of augmentation or have been too brief to observe it, but the team hopes more attention will be paid to the issue in research studies.

"Ultimately, there is hope for those who suffer from restless leg syndrome," Richard said. "But until there's an effective drug we can use long term without interruption, for many patients hope lies in a merry-go-round of medications, not a single drug. Patients and physicians must be braced for this."



Roger Kurlan, M.D.



Highland Hospital Bariatric Center Accredited

Highland Hospital's Bariatric Surgery Center has been designated an Accredited Bariatric Center by the Bariatric Surgery Center Network Accreditation Program of the American College of Surgeons. Highland is the only hospital in western New York to earn the designation.

To achieve accreditation, a bariatric surgery center must provide the optimal care for morbidly obese patients and also support the entire spectrum of care and needs of bariatric patients, from pre-surgery classes, nutritional and psychological counseling, to postoperative care and treatment.

"We earned this accreditation by providing a high standard of care to our patients," said **William O'Malley, M.D.**, director of the Bariatric Surgery Center at Highland. "We are measured in several ways including the skill of our surgeons and a minimal complication rate, but also for the sensitivity and awareness of our staff for the special needs of our patients."

The accreditation means that Medicare will cover bariatric surgery for qualified patients at Highland.

"We have about 30 Medicare patients who have gone through the pre-operative classes but have been on hold until the accreditation became official," O'Malley said. "Those patients can now receive their surgery."



Highland's recently renovated Bariatric Center includes an operating room suite with a specially designed bariatric surgery table, state-of-the-art laparoscopic instruments, cameras, flat-panel video monitors and specially designed lighting. Since 2001, Highland has performed nearly 2,700 bariatric surgeries.

For information or to make referrals to the Bariatric Center, please call (585) 341-0366.

We regret an error in the Fall 2006 edition of *Strong Health Connection* in which a photo of **Avice M. O'Connell, M.D.**, appeared with the caption for **Kristin Skinner, M.D.**, with an article about new physician appointments at The James P. Wilmot Cancer Center Breast Cancer Program. Our apologies are extended to Drs. O'Connell and Skinner, who are properly identified here.



Kristin Skinner, M.D., is chief of the Division of Surgical Oncology and director of the Multidisciplinary Breast Program at The James P. Wilmot Cancer Center.



Avice M. O'Connell, M.D., is director of Women's Imaging and associate professor of Clinical Imaging Sciences at the University of Rochester Medical Center.

KUDOS

Arthur J. DeCross, M.D., associate professor of Medicine in the Division of Gastroenterology and Hepatology, has been named a fellow of the American Gastroenterological Association. Through its fellowship program, the AGA honors superior professional achievement in clinical private or academic practice and in basic or clinical research. Fellowships are awarded to AGA members whose accomplishments and contributions demonstrate personal commitment to the field of gastroenterology.

Richard Fisher, M.D., professor of Medicine and director of the James P. Wilmot Cancer Center, received the Davey Memorial Award for outstanding contributions to cancer research. Fisher was recognized for his tremendous contributions to improvements in how doctors treat indolent non-Hodgkin's lymphoma.

Mark Gestring, M.D., assistant professor and director of Trauma Services, was honored by the World Council of Churches with its Peacemaker Award. Gestring was recognized for his role in bringing together community organizations to proactively provide a range of specialized support services to teens who suffer from injuries resulting from violent crimes.

Cindy Hogan, Ph.D., audiologist, received a grant from the Widex Hearing Assistance Program Loaner Network, making Strong Health Audiology one of 10 sites in the country to receive a bank of advanced digital hearing aids to loan pediatric patients. Other prestigious recipients include Boys Town National Research Hospital for Audiological Services and the League for the Hard of Hearing, New York City.

Mark Orlando, Ph.D., of Strong Health Audiology, and **John Wayman, M.D.**, of University Otolaryngology Associates, are featured in the HBO documentary *Hear and Now*, which follows filmmaker Irene Taylor Brodsky's parents, Paul and Sally Taylor, through the process of cochlear implantation. Orlando provided the Taylors with diagnostic and rehabilitative services associated with their implants. Wayman performed the implantation. The film, which opened the Deaf Film Festival in Rochester in March, won the Audience Award for a documentary in the Independent Film Competition at the 2007 Sundance Film Festival.

Mark Taubman M.D., chief of the Cardiology Division and director of the Cardiovascular Research Institute at the University of Rochester Medical Center, has been named editor-in-chief of the journal *Arteriosclerosis, Thrombosis and Vascular Biology (ATVB)*, one of five medical journals produced by the American Heart Association. In conjunction with the appointment, the journal offices will move to the University of Rochester and will help focus national and international attention on the University and the region as a major center for the study of cardiovascular diseases. ATVB is considered the leading journal in the fields of vascular biology and atherosclerosis and ranks competitively in terms of its measured impact with other major scientific journals. It has offices in Europe and Asia, as well as in the United States, and is read by leading physicians and scientists throughout the world. As editor-in-chief, Taubman will be responsible for overseeing the activities of all three offices.

APPOINTMENTS

ANESTHESIOLOGY

O. Scott Raffo, M.D.

CARDIOLOGY

Barbara Kircher, M.D.

DERMATOLOGY

Sherry Maragh, M.D.

FAMILY MEDICINE

Mark Mirabelli, M.D.

GERIATRICS

Gary Warner, Ph.D.

INFECTIOUS DISEASE

Sumanth Rajagopal, M.D.

MEDICINE

Ravi Agarwala, M.D.
Keon Menzies, M.D.

NEUROLOGY

Marc Halterman, M.D.
Lahar Mehta, M.D.
Anthony Moraldo, M.D.
John P. Sullivan, M.D.

NEUROSURGERY

Kevin Walter, M.D.

OPHTHALMOLOGY

David Kleinman, M.D.

ORTHOPAEDICS

Miriam Weber, Ph.D.

SURGERY

David Locastro, M.D.
Kristin Skinner, M.D.
Jenny Speranza, M.D.
Thadeus Trus, M.D.

Medical Center Names Vice President for Clinical Services

Richard I. Fisher, M.D., director of the James P. Wilmot Cancer Center and director of Cancer Services at Strong Health, has been appointed vice president for Clinical Services for the University of Rochester Medical Center and its patient care network, Strong Health.

An internationally known expert on the biology and treatment of lymphoma, Fisher continues in his current roles as chief of the Hematology/Oncology Unit and the Samuel E. Durand professor of Medicine as he assumes new administrative responsibility as a member of the Medical Center's leadership team.

Since his recruitment to the University of Rochester from Loyola University's Cardinal Bernardin Cancer Center in 2001, Fisher has integrated the Medical Center's cancer services, recruited 17 scientists/clinicians, and formulated a strategic plan to help the Wilmot Cancer Center capture National Cancer Institute-designation. Key to his strategy is a new, four-story cancer research and treatment center which is under construction, expected to open in spring 2008.

"Rich Fisher has a remarkable track record of achievement both at Loyola and here at URMCM," said CEO **Bradford C. Berk, M.D., Ph.D.** "He can formulate a compelling vision and inspire others to work in unison toward common goals. He brings a very patient-centric philosophy that will add value throughout the Medical Center's services." Since Fisher has come to Rochester, the Wilmot Cancer Center has seen double-digit growth in the numbers of patients it serves and a four-fold increase in research funding, Berk notes.

As vice president for Clinical Services, Fisher will help organize the Medical Center's patient care programs along service lines—a process that clusters services around specific diseases, such as cardiac care, cancer treatment, organ transplants, brain and nervous system disorders and orthopaedic conditions. The goal is for members of each patient's care team—physicians, nurses, technicians, and support staff—to work together to streamline and coordinate care.

"The way we've organized ourselves in the past—within distinct departments—is too limiting, yet there is no one-size-fits-all way to organize clinical service lines," Fisher said. "My job will be to think strategically from the patient's perspective, to propose solutions from within a spectrum of models to structure our resources in a way that allows us to truly manage disease."



Richard I. Fisher, M.D.

In organizing service lines, Fisher will work closely with **Steven I. Goldstein**, CEO of Strong Memorial and Highland Hospital, as well as the hospitals' leadership teams. Fisher will also collaborate with Medical School dean **David Guzik, M.D., Ph.D.**, to advance clinical research, and with Center for Community Health director **Nancy Bennett, M.D.**

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Teri D'Agostino, Director of Public Relations and Communications
Lori Barrette, Editor
Shirley D. Zimmer, Art Director

FOR YOUR CME CALENDAR

All programs are held at the University of Rochester Medical Center unless otherwise noted.

Pediatric Advanced Life Support Provider Course

May 11 and 18, or
July 13 and 20
Renewal Course

June 8
Activities Director:
Elise van der Jagt, M.D.

Annual Ophthalmology Technician Conference

May 18
Activity Director:
William Fischer

Annual Ophthalmology Physician Conference

May 18-19
Activity Directors:
Steve Feldon, M.D.,
Deborah Friedman, M.D.

Cardiology Series - Intractable Angina: Newer Options

May 23
Ramada on the Lake,
Geneva, NY
Series Director:
John Bisognano, M.D.
Activity Director:
Jason Garringer, M.D.

Cardiovascular Disease in Women: Update 2007

May 24
Activity Director:
Gladys P. Velarde, M.D.

20th Annual Rochester Conference in Perinatal Medicine Pre-Eclampsia: An Update

May 31
Rochester Riverside
Convention Center
Activity Director:
Eva Pressman, M.D.

Advanced Cardiac Life Support Provider Course

May 31 and June 7
Activities Director:
Carol Diachun, M.D.
Renewal Course
July 26

Epilepsy in Clinical Practice 2007: A Focus on Epilepsy and Developmental Disabilities

June 14
Activity Director:
Craig Henry, M.D.

AROUND THE REGION

Courses offered by the University of Rochester School of Medicine and Dentistry are held at the following locations. For an update on specific topics and speakers, visit our website at www.urmc.rochester.edu/cpe

CANANDAIGUA
CANANDAIGUA VA MEDICAL CENTER
Call (585) 393-7551

Discriminant Use of Antibiotics in the Primary Care Setting

June 1, 11:30 a.m.
Robert F. Betts, M.D.
Professor, Infectious Diseases

ITHACA
CAYUGA MEDICAL CENTER AT ITHACA
Call (607) 274-4225

Osteoporosis
May 11, 7:30 a.m.
J. Edward Puzas, Ph.D.
Professor, Orthopaedics

Substance Screening In Pregnant Women
June 29, 7:30 a.m.
Gloria Baciewicz, M.D.
Associate Professor, Psychiatry

BATH
BATH VA MEDICAL CENTER
Call (607) 664-4770

Pain Management: Adjunctive Medications or Treatments as Alternatives to Narcotics
June 14, 10:00 a.m.
Rohaan Mehta, M.D.

Fellow, Anesthesiology

DANSVILLE
NICHOLAS H. NOYES MEMORIAL HOSPITAL
Call (585) 335-4323

Common Coagulation Disorders
May 24, 8 a.m.
Charles W. Francis, M.D.
Professor, Hematology/Oncology

Chronic Wound Care
June 28, 8 a.m.
Mark G. Davies, M.D.
Associate Professor, Vascular Surgery
Lisa B. Wallin, N.P.
Nurse Practitioner, Vascular Surgery

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