



From the Research and Clinical Trials Administration Office

Severe Hematologic Disease Study

The Section of Hematology is participating in a study to increase understanding about stem cell therapies and the treatment of severe hematologic diseases, such as blood cancers, thereby enabling the development of more effective treatments. The study is seeking healthy individuals to donate bone marrow samples. Compensation is available for those who donate.

Participants must meet the following criteria:

- Be between the ages of 18 and 65
- Be healthy
- Not be allergic to lidocaine (the local anesthetic used during sample collection)

This is a partial list of inclusion and exclusion criteria. The principal investigator at Rush is **Kent Christopherson, PhD**. For more information, contact the Section of Hematology at (312) 942-5157.

Metabolic Complications Associated With Olanzapine Study

The Department of Psychiatry is conducting a double-blind, placebo-controlled study to investigate the effectiveness of the drug metformin in preventing metabolic complications (weight gain, diabetes, etc.) associated with olanzapine (Zyprexa) in subjects diagnosed with schizophrenia, schizoaffective disorder, bipolar disorder and/or major depression with psychotic features.

Participants must meet the following criteria:

- Have just started or are about to start taking olanzapine
- Not be diabetic
- Not be pregnant

This is a partial list of inclusion and exclusion criteria. The principal investigators at Rush are **Jeffrey Rado, MD**, and **Stephanie Cavanaugh, MD**. For more information, contact Genevieve Riebe at (312) 563-3157.

Rush Needs Your Vital Stats!

Your physician profile is used for "find a doctor" on the Rush Web site and by the Rush call center to guide referrals, so it's important that your information is always up-to-date. Make sure to update your profile any time your information changes, which you can do quickly and easily using a convenient Web link. To request the link, contact Barb Krahn, director of call center services and customer relationship management, at (312) 563-4723 or Barbara_J_Krahn@rush.edu. She will send the link to you via e-mail, along with instructions on how to access the online profile form.

Programs and Services Spotlight

Movement Disorders Surgery Program

For decades, Rush has enjoyed an international reputation as one of the world's premier centers for the treatment of Parkinson's disease (PD), dystonia, essential tremor and other movement disorders. This reputation was bolstered with the creation of a surgical treatment program for movement disorders at Rush in 2001.

The program is co-directed by neurologist **Leo Verhagen, MD, PhD**, and neurosurgeon **Roy Bakay, MD**. Their programmatic, multidisciplinary approach to the surgical treatment of movement disorders is supported by dedicated specialists, including a psychiatrist, neuropsychologist, speech-language pathologist, social worker and neurophysiologist.

Surgical Excellence and Innovation

Bakay and Verhagen are leaders in the use of deep brain stimulation (DBS) to treat movement disorders; Bakay was among the first in the United States to use this FDA-approved procedure in Parkinson's patients and the first in Chicago to implant a stimulator in a patient with Tourette's syndrome. DBS can also be used to effectively and safely control tremor, and it has brought long-needed hope to children and adults with dystonia because it can be dramatically effective in the most severe cases, where medical therapy fails.

Bakay has performed more than 350 DBS procedures in patients with PD. Through a National Institutes of Health Consortium grant, Verhagen is principal investigator at Rush of a study to determine how subthalamic nucleus (STN) DBS alters tremor, rigidity, bradykinesia and speech in PD patients, as well as to unravel the pathophysiological mechanisms in PD. Bakay also has an NIH grant to study stem cell transplantation.

In addition to DBS, the following innovative surgical options for Parkinson's disease are currently under investigation at Rush:

- **Cortical stimulation.** Based on the premise that in PD disturbances occur throughout the basal ganglia-thalamocortical loop, the team hypothesized that the "deep brain" is not the only site where stimulation can produce beneficial effects. Rush recently headed a three-center phase IIA study, the results of which are currently under analysis.
- **Implantation of pigmented retinal cells in the putamen.** Epithelial cells produce levodopa, the precursor of dopamine. Bakay pioneered this promising procedure five years ago in a pilot study and is now the lead surgeon in an international, multicenter trial. *See sidebar (at right) for further details.*
- **Use of the neurotrophic factor neurturin to potentially modify disease progression.** The team is applying an innovative delivery strategy for this large protein: incorporating the neurturin gene into a viral (AAV2) vector and surgically delivering it to the striatum. After a positive open label study by the team at Rush and colleagues at another institution, a randomized trial for this procedure is now under way; results will be available by the end of 2008.

Progress Notes

Julio Silva, MD, has been appointed associate vice president and chief medical information officer (CMIO) of Rush University Medical Center. Prior to his appointment, Silva had served as acting CIMO for eight months and was instrumental in the success of several Epic go-lives, especially the go-live in the emergency department. He has been a key part of the Epic implementation team since March 2006. Silva has been at Rush since 2001 as associate clinical chairperson of the emergency department. He also served as the research director and chair of the department's quality committee.

Participating Physicians and Staff

Neurology

Leo Verhagen, MD, PhD
Medical director

Peggie Smith, PA-C

Rush Movement Disorders Center
1725 W. Harrison St., Suite 755
(312) 563-2900

Neurosurgery

Roy Bakay, MD
Surgical director

Margaret Yesko, RN, MSN

University Neurosurgery
1725 W. Harrison St., Suite 970
(312) 942-6644

To refer a patient or for a consultation with a movement disorders specialist, please contact the Rush Movement Disorders Center at (312) 563-2900.

Cell-Based Therapy Shows Promise in Treating Parkinson's Disease

Spheramine, a novel cell therapy using retinal pigment epithelial (RPE) cells attached to tiny gelatin bead microcarriers implanted in the brain, can improve the symptoms of patients with moderate to advanced Parkinson's disease. In a pilot study, neurosurgeon **Roy Bakay, MD**, and colleagues reported that Spheramine was well-tolerated and that patients experienced improvement or stabilization of symptoms (tremor, rigidity, slowness of movements, and impaired balance and coordination), maintained for a minimum of two years after implantation. Positive results in the pilot study prompted the initiation of a Phase IIb study (STEPS) to further evaluate the safety, tolerability and efficacy of Spheramine. **Leo Verhagen, MD**, the principal investigator at Rush, enrolled the last patient in June 2007; the 12-month study data will be released at the end of this summer.



Clinical CORNER

Surgery a Better Treatment Option for Spinal Stenosis

A study by **Howard An, MD**, co-medical director of the Spine and Back Center at Rush, and his colleagues found that patients who underwent surgery for spinal stenosis showed significantly more improvement in all primary outcomes than patients who were treated nonsurgically. The study findings were published in the *New England Journal of Medicine*.

Rush was the only Illinois medical center involved in the study, which was conducted at 13 treatment centers nationwide. Of the 654 patients with spinal stenosis enrolled in the trial, 398 ultimately underwent decompressive surgery; the rest had nonsurgical treatments, such as physical therapy.

After two years, 63 percent of those who had surgery said they saw a major improvement in their condition, compared to only 29 percent of the nonsurgical group. Additionally, the surgery patients had less self-reported pain and greater function than the nonsurgical patients. "These results tell us that if spinal stenosis causes significant symptoms that diminish a patient's quality of life, surgery can be successful in relieving symptoms and offers better outcomes than continued observation or nonoperative treatment," An says.

Women Less Likely Than Men to Receive Heart Medications

Although women and men experience a similar prevalence of adverse drug reactions in the treatment of coronary artery disease (CAD), women are significantly less likely than their male counterparts to be treated with statins, aspirin and beta-blockers, according to a new study by researchers at Rush that was published in the journal *Gender Medicine*.

A collaboration between the Rush Heart Center for Women, led by **Annabelle Volgman, MD**, and the Department of Internal Medicine, the study involved 304 consecutive patients with CAD at the outpatient cardiology clinic at Rush. The study found that only 78.1 percent of women were treated with statins compared to 90.8 percent of men. Men were also six times more likely than women to receive aspirin and beta-blockers.

CAD is the leading cause of death among women in the United States, and since 1984, the annual number of cardiovascular-related deaths in women has exceeded that of men. "Physicians' perceptions of either anticipated adverse drug reactions or less severe disease may be influencing their decision not to prescribe these medications for women," says lead study author **Jonathan Enriquez, MD**, an internal medicine physician at Rush. "We encourage further studies to identify the cause of the disparity, so that care for women with CAD may be optimized."

INTRODUCTIONS

The following is a list of physicians who joined the Medical Staff of Rush University Medical Center between January 1 and March 15, 2008. The Medical Staff Office and the Office of Marketing and Communications have made every effort to publish accurate information that is as complete as possible; if, however, the information below is incorrect or we have omitted information, we apologize and ask that you contact Muriel Coleman in the Medical Staff Office at (312) 942-5496.

Zahid Amin, MD
Rush Center for Congenital and Structural Heart Disease
Pediatrics - interventional cardiology
(312) 942-7496
zahid_amin@rush.edu

Muhammad Azharuddin, MD
Internal medicine
(312) 942-6600
muhammad_azharuddin@rush.edu

Mireya Dondalski, MD
Diagnostic radiology and nuclear medicine
(312) 942-5779
mireya_dondalski@rush.edu

Daniel Felten, MD
University Pediatrics
Pediatrics
(312) 942-2200
daniel_felten@rush.edu

Ratna T. Garapati, MD
Anesthesiology
(312) 942-6504
ratna_garapati@rush.edu

Karen Hayani, MD
Pediatrics
(312) 996-7189
khayani@uic.edu

Jose C. Mendez, MD, FACC
University Cardiologists
Internal medicine – cardiology; heart failure and heart transplant
(312) 942-5020
jose_c_mendez@rush.edu

Sohrab Mobarhan, MD
Internal medicine - gastroenterology and gastrointestinal cancer
(312) 942-8570
sohrab_mobarhan@rush.edu

Raymond T. Narh, MD
Internal medicine
(312) 791-2945
raymond_narh@rush.edu

Kourous A. Rezaei, MD
Ophthalmology
(312) 871-8444
irenak@illinoisretina.com

Douglas R. Smego, MD
Cardiovascular-thoracic surgery
(312) 563-2762
douglas_r_smego@rush.edu

Amanda L. Stiehl, MD
Psychiatry
(312) 942-5375
amanda_stiehl@rush.edu

Hande H. Tuncer, MD
Internal medicine - hematology
(312) 563-2443
hande_tuncer@rush.edu

IN THE NEWS:

Rush Receives Two Landmark Grants

Pilot Study Aims to Improve Patient Safety

The Otho S.A. Sprague Memorial Institute has awarded a \$124,633 grant to support a first-of-its-kind patient-safety project. The pilot program will use Rush's mediation program to develop interventions to avoid activities that may have adverse effects on patients. This innovative program has the potential to serve as a model for similar mediation programs throughout Chicago and the nation.

Mediation is a voluntary process in which a trained mediator serves as a neutral guide to help resolve problems that otherwise may go to court. The Medical Malpractice Mediation Program at Rush is nationally recognized for its effective methods of resolving medical malpractice disputes by acknowledging adverse events and fairly compensating patients who may have been injured as a result.

As part of the pilot program, the mediation team, led by Max Brown, JD, vice president and general counsel of the Office of Legal Affairs, and The Hon. Jerome Lerner, mediation consultant in the Office of Legal Affairs, will review a sampling of cases. A team will then conduct a root cause analysis of those cases. **Robert McNutt, MD**, chief of the Section of Medical Informatics and Patient Safety, will serve as medical advisor for the patient safety projects that emanate from these cases. The team will disseminate its findings to senior executives within Rush and later to Chicago's medical and legal communities.

"We hope this pilot spurs the development of innovations that engage the medical and legal communities in a shared goal of improving quality and patient safety," says McNutt.

Addressing Childhood Obesity

The Otho S.A. Sprague Memorial Institute has also awarded a \$230,000 grant to support a first-of-its-kind childhood obesity project at Rush. The Medical Center is using the grant to pilot an 18-month program, "A Combined Biomedical and Psychosocial Approach to Weight Management," led by **Cathy Lynn Joyce, MD, PhD**, assistant professor in the Department of Pediatrics. The program began in February and will run through July 2009.

The project team comprises pediatricians, nurses, nutrition and fitness specialists, social workers and other specialists who will help each enrolled child and family achieve a healthier lifestyle. The team is enrolling patients from pediatric and adolescent practices at Rush with a socioeconomically diverse population of families.

The multidisciplinary program will help physicians to better understand the complicated factors that lead to childhood obesity and to develop a protocol for effective behavioral change, focusing on children and their families. Rush is the first medical center in the United States to implement a formalized program using an interdisciplinary team of health care professionals coupled with direct family involvement.

Kudos

Rush was named in "**The Top 100 Hospitals Cardiovascular Benchmarks for Success, 2007**" report by Thomson Healthcare. Rush was the only hospital in Illinois to receive the award in the category "Teaching Hospitals With Cardiovascular Residencies." The study examined the performance of nearly 1,000 hospitals nationwide by analyzing their outcomes for eight measures related to

congestive heart failure, heart attacks, coronary artery bypass grafts (CABGs) and percutaneous coronary interventions (PCIs), such as angioplasties. Compared to peer hospitals, the 100 top hospital award winners had hospital stays that were 12 percent shorter, on average; had costs that averaged 13 percent less per case; and performed nearly two-thirds more CABGs and PCIs.