

Specialty labs for sleep studies and genetics

NEW FACILITY TAKES SHAPE



The new Rachel Upjohn Building will house the University of Michigan Depression Center and Psychiatry Ambulatory programs. These include U-M Addiction Treatment Services (UMATS) and an array of research programs. Building construction is proceeding on schedule with expected completion in October 2006. Please mark your calendars for a Community Open House celebration on Sunday, Nov. 12, from 1:00 to 4:00 p.m. Building tours, scientific displays, and other activities will be featured. More Community Open House details will follow in the Fall 2006 issue of the *Depression Center Update*.

The completed building will be three stories tall, with a two-story atrium filled with natural light thanks to a large skylight (left), an abundance of windows and protected surrounding wetlands. The total square footage will be 112,500, with 54,000 square feet devoted to research.

The facility will feature 353 offices and treatment rooms, seven patient waiting areas, and two telemedicine rooms where clinicians can communicate with patients and clinicians elsewhere via telephone and computer.

THE RACHEL UPJOHN BUILDING WILL HAVE

- 8,500 square feet of windows
- 83,000 bricks
- 675 tons of steel
- 108,000 square feet of carpet
- 567 doors

DEPRESSION CENTER EVENTS

SAVE THE DATES

Out of the Darkness Community Walks

The Depression Center is pleased to support the American Foundation for Suicide Prevention's (AFSP) annual Out of the Darkness Community Walks. By participating in these events, thousands of walkers nationwide raise money for AFSP's vital research and education programs to prevent suicide and save lives, increase national awareness about depression and suicide and assist survivors of suicide loss. A portion of the funds raised by the Ann Arbor walk will help to support the Depression Center's free family education and patient support groups.

Below are the dates for the Michigan walks. For more information, or to donate or volunteer for any of these walks, please contact Tammi Landry, AFSP Michigan area director, at (248) 669-1898, or via e-mail at tlandry@afsp.org.

- Lansing** – Saturday, Sept. 16, 2006: Potter's Park
- Ann Arbor** – Sunday, Sept. 17, 2006: Pioneer High School
- Metro Detroit** – Sunday, Oct. 1, 2006: Kensington Metro Park, Milford
- Grand Rapids** – Saturday, Oct. 7, 2006: Millennium Park
- Battle Creek** – Saturday, Oct. 14, 2006: Fell Park



National Depression Screening Day—Free, Confidential Screenings for Depression

On Thursday, Oct. 5, from 5:30–8:00 p.m. at the Downtown Ann Arbor District Library (343 S. Fifth Avenue), the Depression Center and M-CARE will host a National Depression Screening Day presentation and offer free, confidential depression screenings. The event is open to the public, no pre-registration is required and participants are welcome to drop in at any time during the evening. Online screening is available at all times at www.depressioncenter.org.

SUBSCRIBE TO DEPRESSION CENTER UPDATE

You've received this newsletter because you elected to be added to our mailing list, or because you have been identified as someone interested in advances in the treatment and prevention of illnesses. If you want to be deleted from the mailing list, please contact Trish Meyer at meyerpa@umich.edu or call (734) 763-7495.

For More Information: Information about depression is available online. Please visit the University of Michigan Depression Center web site at www.depressioncenter.org.

To Receive Future Issues: To be placed on the Depression Center's mailing list, call Trish Meyer at (734) 763-7495 or e-mail meyerpa@umich.edu.

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DEPRESSION CENTER update

From the nation's first comprehensive depression center

SUMMER | 06

treatment resistant depression



Depression is a brain disease that affects one out of every seven people. Medications and psychotherapy ("talk therapy") remain the mainstays of treatment, but not all patients fully respond or achieve remission (become symptom-free) when treated with medications. Recent evidence from a large multi-site national research study shows that only one-third of depressed individuals are symptom-free after the first course of antidepressant treatment. Furthermore, only about one-quarter of patients are in remission after treatment with a second antidepressant. Individuals who have not yet improved after trying numerous individual medications and/or psychotherapy techniques, are often categorized as having treatment resistant depression (TRD).

The Depression Center's Treatment Resistant Depression Program, funded in part by a generous gift from the Noble Foundation of Wooster, Ohio, is part of the Center's Comprehensive Mood Disorders Clinics (CMDC). The CMDC provides extensive evaluations and innovative clinical programs for people suffering from TRD.

Melvin McInnis, M.D., director of the CMDC, says, "There has been a shift in thinking about the

treatment of depression. Remission and complete wellness are our goals. Getting partially or mostly better is not good enough."

To address the needs of patients with TRD, physicians turn to long-standing treatments as well as those that are relatively new. One option is to combine different kinds of mood-stabilizing and anti-psychotic medications. Another option, electroconvulsive therapy (ECT), is often used for patients with TRD and is the treatment that has the best evidence of achieving remission. In addition to these approaches, emerging strategies that offer hope for TRD include vagus nerve stimulation (VNS), repetitive transcranial magnetic stimulation (rTMS) and deep brain stimulation (DBS). These new techniques are sometimes referred to as neuromodulation treatments because they affect, or modulate, brain functioning.

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"There has been a shift in thinking about the treatment of depression"

For more information, visit www.depressioncenter.org.



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The Depression Center is incorporating a range of neuromodulation techniques in the evaluation and treatment of patients with TRD who are seen in the Comprehensive Mood Disorders Clinics. Consistent with the Center's overall mission, the strategy with respect to TRD is to prevent its development by detecting and treating it earlier and more effectively, achieving remission and preventing recurrences and progressions.

To contact the Comprehensive Mood Disorders Clinics, call (800)525-5188 or (734)764-9190.



MEETING THE CHALLENGE

CHRONIC DEPRESSION AND TRD

Depression is often a recurrent illness with repeat episodes, or can also become chronic with persistent depressive symptoms. Thus, sometimes "TRD" and "chronic depression" are used interchangeably. The common definition of treatment resistance usually refers to an illness that has not responded to at least two or three courses of medication. Inadequate response to more than three medications, combinations of medications or even electroconvulsive therapy (ECT) is categorized as severe resistance. TRD generates enormous burdens for depressed individuals and their families, and huge costs for society. Individuals with TRD have more physician visits and hospitalizations, more difficulties functioning in the workplace and are at higher risk of suicide.

MAKING NEWS

WHAT IS THE DEPRESSION CENTER doing to help?

Depression Center Staff Making a Difference

The Psychiatric Neuromodulation Program translates research into clinical expertise to provide the best possible assessment and care for those with treatment resistant depression.

Leading the research arm of the neuromodulation program is Stephan F. Taylor, M.D., associate professor of psychiatry. Dr. Taylor's research focuses on how the brain processes the emotion and how specific "emotion circuits" are disturbed in psychiatric disorders. Through his research, he seeks to understand the cognitive-emotional disturbances that char-

acterize severe brain illnesses, including TRD. His studies have focused on repetitive transcranial magnetic stimulation (rTMS) and deep brain stimulation (DBS).

Daniel Maixner, M.D., heads the clinical efforts. He recently served as the lead Michigan investigator for a multi-site trial of rTMS for treatment resistant depression, and is the lead psychiatrist for the VNS efforts within the Comprehensive Mood Disorders Clinics, where he works with other CMDC faculty and staff to help translate new insights into innovative treatment strategies.



Dr. Stephan F. Taylor (left) leads the research team at the Comprehensive Mood Disorders Clinics, while Dr. Daniel Maixner (right) heads up the clinical services branch.

Translating research into clinical expertise to treat patients with depression and bipolar disorders

PSYCHIATRIC NEUROMODULATION PROGRAM New advances for treatment resistant depression

Psychiatric neuromodulation refers to the use of electrical and magnetic currents to alter or modulate brain activity. These are applied through various methods to areas of the brain involved with perceptions, mood, sleep, anxiety and other critical functions. The Depression Center's Psychiatric Neuromodulation Program offers both new and traditional alternatives to pharmacotherapy for treatment resistant depression (TRD).

"This program came about because not all people are achieving maximal benefit from medications and psychotherapy," says Dr. Daniel Maixner. "Their resistant illnesses are often so complex that alternatives are needed." These include the long-standing, highly effective treatment known as electroconvulsive therapy (ECT), as well as newer neuromodulation strategies including repetitive transcranial magnetic stimulation (rTMS), deep brain stimulation

(DBS) and vagus nerve stimulation (VNS), that are being evaluated as antidepressant treatments. The Center's neuromodulation program is conducting clinical trials for a small group of individuals who could benefit from neuromodulation. "Neuromodulation gives us powerful new options, and we are very optimistic that rTMS, VNS and DBS will make a big difference in the lives of many previously

resistant individuals," says Dr. Stephan Taylor, director of the Center's Psychiatric Neuromodulation Program. John Greden, M.D., executive director of the Depression Center, concurs that "the goal is wellness, which sometimes requires more than conventional approaches."

Administering neuromodulation treatments

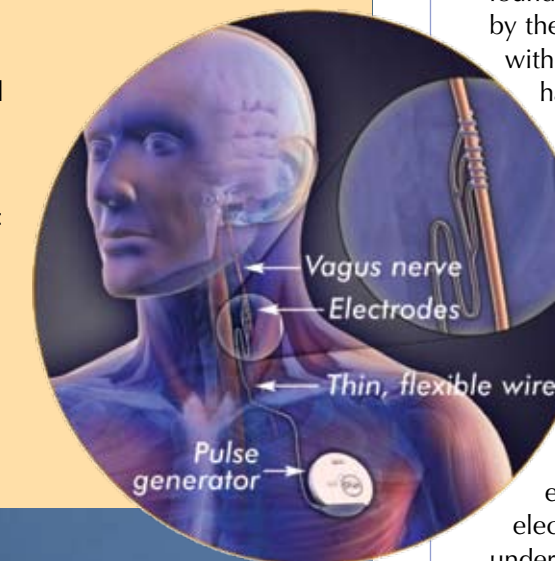
Repetitive transcranial magnetic stimulation (rTMS) uses an electrical coil to generate a

magnetic field, which induces small electrical changes in nerves when the coil is applied to the surface of the scalp. It is an outpatient procedure. Unlike ECT, there is no need for sedation or anesthesia, since the therapy does not aim to cause seizures. "Preliminary studies have been promising," Dr. Taylor states, "and the FDA is considering approval of this treatment sometime in 2007."

Another treatment, deep brain stimulation (DBS), involves the

ANOTHER NEW TREATMENT SHOWS PROMISE

Vagus nerve stimulation (VNS) is a recently approved treatment for severe depression that differs from previously known treatments. A wire from a pulse generator—a small pacemaker-like device implanted under the skin below the collarbone—delivers a brief electrical current to the vagus nerve. The pulse alters neurotransmitters in the vagus nerve, which runs up the neck and directly into brain centers that control mood and arousal. The Psychiatric Neuromodulation Program is currently evaluating patients for this treatment, which can give substantial relief to some people with treatment resistant depression.



A BRIEF HISTORY OF ECT

Did you know...

Electroconvulsive therapy, commonly called ECT, was developed in 1938. While ECT was found effective, especially for treating depression, by the 1960s significant stigma was associated with its use. Since the 1970s, however, ECT use has increased due to improved treatment delivery methods and enhanced anesthesia management. ECT is now one of the safest and most effective treatments for certain patients with severe brain illnesses.

Neurons fired in unison

ECT is most commonly used to treat patients with severe depression who fail to respond to medications or who are unable to tolerate the medication side effects. Treatment involves applying a brief electrical pulse to the scalp while the patient is under anesthesia. This pulse causes brain cells to fire in unison, producing a seizure. Specific reasons for the positive action of ECT remain unclear. Evidence reveals that the seizure activity itself causes an alteration of the brain's neurotransmitters. Another theory proposes that ECT alters the stress hormone regulation in the brain. Whatever the mechanism, the treatment profoundly improves energy, sleep, appetite and mood in many severely depressed individuals.

Use in conjunction with other treatments

ECT is only one component of a complete treatment regimen. For those who respond, medications will likely be required to prevent a return of the depressive illness. Other interventions, such as psychotherapy, might also be recommended. For more information on ECT, visit the Depression Center web site: <http://www.depressioncenter.org>.

Disclosure

Dr. John Greden, executive director of the U-M Depression Center, has consulted for compensation, but has not participated in treatment studies for Cyberonics and Neuronetics, manufacturers of products for VNS and rTMS, respectively.