

**News Release**

University of Pennsylvania School of Medicine  
University of Pennsylvania Health System

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### **First Patient in the Philadelphia Area Receives New Therapy for Treatment-Resistant Depression (TRD)**

*Hospital of the University of Pennsylvania Offers the Only Implantable Device Specifically Indicated for Long-term Treatment of TRD*

(Philadelphia, PA) - Today, Kim Gillies received the first VNS (vagus nerve stimulation) Therapy implant to be offered at the **Hospital of the University of Pennsylvania**. At age 40, Gillies has suffered from severe depression that she says has caused her a “profound sense of exhaustion” for 27 years. She has tried numerous treatment options including psychotherapy, antidepressants and even electroconvulsive therapy with little success and says, “I hope that this therapy will help me get on with my life.”

Penn neurosurgeon **Gordon Baltuch, MD**, performed Gillies’ procedure, which involves implanting a small pacemaker-like device under the skin in the chest area that sends mild pulses to the brain via the vagus nerve in the neck. A thin, thread-like wire, attached to the generator, runs under the skin to the left vagus nerve. The vagus nerve, one of the 12 cranial nerves, serves as the body’s “information highway” connecting the brain to many major organs. Several studies have shown that VNS Therapy may modulate neurotransmitters such as serotonin and norepinephrine thought to be involved in mood regulation.

Within the next two weeks, Gillies’ psychiatrist, **John P. O’Reardon, MD**, Assistant Professor of Psychiatry at the **University of Pennsylvania School of Medicine** and Director of Penn’s Treatment Resistant Depression Clinic, will adjust the device so it delivers the right amount of stimulation to treat Gillies’ symptoms.

“Patients with TRD clearly need additional treatment options. The availability of VNS Therapy is an important new option for people who, until now, have not had access to a long-term treatment for controlling depressive symptoms,” says O’Reardon. “It is especially important to know that clinical study results indicate that patients achieve increasing benefits from VNS Therapy over time and that the improvement appears to sustain well. Additionally, VNS Therapy is quite tolerable, and side effects typically diminish over time,” says O’Reardon, who expects to recommend at least 20 more patients for the therapy this year at Penn.

The Hospital of the University of Pennsylvania is the first in the area to offer VNS Therapy as a long-term medical device treatment specifically for treatment-resistant depression (TRD). VNS Therapy was approved in July 2005 by the U.S. Food and Drug Administration (FDA) as a long-term adjunctive (add-on) treatment for patients 18 years of age and older who are experiencing a major depressive episode and have not had an adequate response to four or more adequate antidepressant treatments. VNS Therapy was approved for the treatment of pharmaco-resistant epilepsy in 1997, and is now the first treatment specifically studied and

approved for TRD.

In clinical studies of VNS Therapy, more than half of the patients who had experienced an average of 25 years of major depressive disorder and multiple treatment trials realized some clinical benefit, about 40% of the patients had at least a 50 percent improvement in their depression, and one out of six was depression-free after one year and two years of treatment with VNS Therapy. Patients also reported significant improvements in quality-of-life areas, such as vitality, mental health, emotional well-being, and social functioning.

Major depressive disorder is one of the most prevalent and serious illnesses in the U.S., affecting nearly 19 million Americans every year. Of those, 20 percent, or approximately 4 million people, experience depression that does not respond to multiple antidepressant treatments. For these people, treatments including psychotherapy, antidepressant medications and even sometimes electroconvulsive therapy do not work, or they work for a short while and stop working over time. VNS Therapy is an important new treatment option for these people.

For more information on VNS Therapy at Penn, call 1-866-301-4724.

For general information on VNS Therapy, visit [www.vnstherapy.com](http://www.vnstherapy.com) or call 1-877-NOW-4-VNS.

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