

PSYCHIATRY

News and Research
from the Department of
Psychiatry and Health Behavior

NEWSLETTER

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NEUROSTIMULATION RESEARCH AND THERAPY AT AUGUSTA UNIVERSITY OPEN HOUSE TUESDAY, JANUARY 16.

Join us for an open house on January 16, 2018 5:30-7 p.m. in the Stoney Building (997 Saint Sebastian Way, Augusta, GA 30912). Meet our faculty and receive a tour and demonstration of the full spectrum of neurostimulation/neuromodulation therapies including ECT, transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (tDCS).

THANK YOU FOR SUPPORTING THE CLINICAL, RESEARCH, AND TRAINING MISSIONS OF THE DEPARTMENT OF PSYCHIATRY AND HEALTH BEHAVIOR.

Please designate your gift:

- Willard E. Quillian, III, MD Professorship in Psychiatry, supports a faculty member with teaching expertise in psychodynamically-oriented psychotherapy.
- Emily S. Baumann Child and Adolescent Psychotherapy Fund supports psychotherapy services for uninsured kids and teenagers.
- Department's Greatest Need

For more information or to support this fund, contact Eileen Brandon at 706-721-2515 or ebrandon@augusta.edu. To give online, visit mcgfoundation.org.

ON THE COVER



Founding colleagues of the Department of Psychiatry at the Medical College of Georgia, Hervey Cleckley and Corbett Thigpen are best known as coauthors of *The Three Faces of Eve* which introduced multiple personality disorder to the popular consciousness. However, they also practiced and advanced the art and science of electroconvulsive therapy (ECT) in the U.S.

In this 1953 publication, they explored the potential of ECT in the treatment of addictions. While this approach did not gain acceptance, the use of neurostimulation to treat addictions is the subject of an ongoing investigation.





Dr. Vaughn McCall

MESSAGE TO READERS:

This issue of the Psychiatry Newsletter serves to highlight the Augusta University Therapeutic Neurostimulation Program. For many years, patients in the CSRA suffering from severe and treatment refractory mood and psychotic disorders needed to travel to Atlanta in order to receive electroconvulsive therapy (ECT). In 2012, Drs. Vaughn McCall and Peter Rosenquist joined the faculty. They brought along three ECT devices and an NIH-sponsored study. With help from the Department of Anesthesiology and Perioperative Nursing at Augusta University, they have developed a program to serve those in the CSRA who suffer from treatment refractory illness. Today, ECT is offered in Augusta and in Aiken, SC in partnership with Aurora Pavilion and Aiken Regional Hospital. In 2014, the department added transcranial magnetic stimulation which provides a unique offering of the full spectrum of neurostimulation research and treatment.

ECT AND TMS—HOW DO THEY COMPARE?

ELECTROCONVULSIVE THERAPY (ECT)

ECT stimulates the brain with brief pulses of electrical energy, sufficient to induce a generalized seizure, and is performed under anesthesia.

ECT is performed two to three times per week over two to three weeks.

The antidepressant benefits of ECT are rapid and robust, and are especially notable for those with severe forms of the illness, including bipolar and unipolar depression with psychotic features.

While effective and safe, limiting episodic memory deficits remain a challenge for the field (see "Optimizing ECT" on page 3)



TRANSCRANIAL MAGNETIC STIMULATION THERAPY (TMS)

TMS stimulates the brain with magnetic pulses and is performed while awake.

TMS treatments are typically performed five days per week (20-25 minutes each session) over four to six weeks and may be followed by a three week taper phase to retain benefits.

Headache and treatment site discomfort are the most common side effects of TMS.



Both treatments are FDA-approved for treatment resistant major depression. A significant proportion of patients will achieve remission and improve quality of life.

Both treatments may benefit those with a broad range of comorbid conditions.

Both treatments work by altering abnormal patterns of functional connectivity seen in patients with major depression.

To refer your patient for TMS or ECT treatment, call 706-721-6597.

OPTIMIZING ECT – HOW TO IMPROVE A TIME-HONORED THERAPY



What can be learned by studying the pattern of how the seizure propagates through the brain?



Eminent ECT Research Scientist Dr. Harold Sackeim (far left) visits Augusta University to inaugurate a new clinical trial investigating a new form of ECT, called FEAST (Focal, Electrically Administered Seizure Therapy.) Pictured psychiatry faculty (from left): Dr. Peter Rosenquist, Dr. Vaughn McCall and Dr. Nagy Youssef.

NOT YOUR FATHER'S ECT

Research activities recently completed and underway at Augusta University have been directed toward improving clinical outcomes, minimizing adverse effects, and ensuring that the remarkable improvements seen with ECT are lasting. A longstanding concern about ECT is that it can affect autobiographical memory retrieval. However, a series of technological innovations have markedly improved the cognitive side effect profile. All of these involve shaping the electrical stimulus to direct energy toward brain regions such as the ventromedial and orbital prefrontal cortex which underpin depression, and away from medial temporal brain structures such as the hippocampus which mediate memory. It is now understood that how quickly patients awaken and reorient to the environment immediately following the procedure is one of the best predictors of memory functioning over the course of treatment. Our research team has demonstrated significantly more rapid reorientation times in studies examining two innovations: One of these uses a standard alternating current ECT device but employs a low amplitude stimulus (LAP). The other study uses a novel, direct current ECT device which generates a more focused stimulus (FEAST).