

## UC San Diego Offers Depression Treatment Through Innovative Approaches

September 23, 2009 |

**M**ajor depressive disorder affects nearly 340 million people worldwide and as many as 20 percent of those patients are resistant to treatment. A team of psychiatrists at the University of California, San Diego Medical Center is studying two novel approaches – one utilizing a drug and one a procedure– to better help those affected by depression.

"There are a large number of FDA-approved therapies available to physicians treating depression but, on the whole, their level of effectiveness has not improved over the past 40 years," said David Feifel, MD, PhD, associate professor and director of UCSD's Neuropsychiatry and Behavioral Medicine Unit.

In the first study, UC San Diego is one of several sites around the country that are testing an investigational medicine administered by intravenous infusion, which may be more effective in patients who have not responded to oral antidepressants currently available. "This novel medicine works by a pharmacological mechanism that is totally different from that of any other antidepressant currently on the market," said Feifel.

Feifel explained that this novel drug works on a common neurotransmitter in the brain, glutamate, instead of on serotonin or noradrenalin. The study is based upon studies at the National Institutes of Health (NIH) of a drug with a similar mechanism called ketamine. A commonly used anesthetic, ketamine produced rapid improvement in most severely depressed patients – often within hours – when given intravenously.

The new, randomized study aims to determine whether participants using multiple infusions of the new, investigational drug – along with an additional FDA-approved, oral antidepressant – have better results within three weeks than those taking only oral antidepressants such as selective serotonin reuptake inhibitors (SSRIs), serotonin and norepinephrine reuptake inhibitors (SNRIs), bupropion or mirtazapine.

### **Transcranial Magnetic Stimulation or TMS**

Feifel's team will also be using a treatment newly approved by the FDA called Transcranial Magnetic Stimulation or TMS. TMS works by delivering highly focused MRI-strength magnetic pulses in order to non-invasively stimulate the specific region of the brain associated with mood regulation. Patients do not require anesthesia or sedation and remain awake and alert during treatment, a 40-minute outpatient procedure typically administered daily for four to six weeks.

"Most patients comfortably watch television or read while receiving TMS," explained Feifel. "There is much less discomfort than your average visit to the dentist."

While Feifel cautions that none of these new approaches will work for every depressed patient, he is encouraged. "We are seeing radically innovative approaches being developed, and this is a sign that medical science is making progress toward getting out of the treatment rut we have been in for many years."

Feifel adds, "My colleagues and I are determined to bring all the new approaches under one roof at UC San Diego Medical Center. Hopefully, we will be able to provide patients with depression at least one treatment approach that brings relief from this devastating disease."

# # #

Media Contact: Debra Kain, 619-543-6163, [ddkain@ucsd.edu](mailto:ddkain@ucsd.edu)

---

## Related Specialties

---

[Psychiatry](#)

## Share This Article

---



## Related News

---

[UC San Diego Health Begins Treating Multiple Myeloma with CAR T-cell Therapy](#)  
6/3/2021

[Social Justice as Part of the Remedy for What Ails Us](#)  
6/3/2021

[Diet Plays Critical Role in NASH Progressing to Liver Cancer in Mouse Model](#)

6/1/2021

Noted Researcher and Scientific  
Leader Jack E. Dixon Retires  
5/27/2021

[View All News >](#)

## Follow Us

---

 Follow @ucsdhealth

