

# A Sampling of NARSAD Grants at Work: Highlights from 2011

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## Next Generation Therapies: Schizophrenia

Aaron T. Beck, M.D., and colleagues demonstrate that cognitive behavioral therapy (CBT) can successfully treat the 'negative' symptoms of schizophrenia, such as emotional flatness, listlessness and isolation.



2006 DI

## Diagnostic Tools / Early Intervention: Depression

Andrea Danese, M.D., Ph.D., and colleagues discover that people mistreated in childhood are twice as likely to suffer depression and respond poorly to treatment, leading the way toward diagnostic and early intervention possibilities for those at risk.



2009 YI

## Basic Research: Schizophrenia and Bipolar

Jonathan Mill, Ph.D., and colleagues demonstrate that potentially reversible epigenetic changes play a key role in mental illness in the first study to systematically investigate genome-wide epigenetic differences in a large number of psychosis discordant twin-pairs.



2008 YI

Scientific Council Member (SC)

Distinguished Investigator (DI)

Independent Investigator (II)

Young Investigator (YI)

Research Partnership (RP)

## New Technologies: Depression

Tarique Perera, M.D., furthers studies on Transcranial Magnetic Stimulation (TMS), pioneered by Mark S. George, M.D. Dr. George estimates that three people a day are recovering from depression because of TMS.



Dr. Perera

2004 YI



Dr. George

SC  
1996 YI, 1998 II

## Basic Research: Schizophrenia

Guo-li Ming, M.D., Ph.D., 2010 II, Russell L. Margolis, M.D., 1994 YI, 1999 and 2003 II, 2007 DI, Christopher A. Ross, M.D., Ph.D., 1990 YI, 1995 and 2004 DI, Hongjiun Song, Ph.D., 2008 II, and others used stem-cell technology to reprogram skin stem cells with a risk gene for schizophrenia. Such cells have potential to revolutionize drug screening.



Dr. Song

2008 II

## Diagnostic Tools / Early Intervention: Depression

Joan L. Luby, M.D., and colleagues successfully tested a novel form of psychotherapy called Parent Child Interaction Therapy-Emotion Development (PCIT-ED) to help preschoolers with symptoms of depression function better and learn to regulate their emotions.



2004 and 2008 II  
RP with Oxley Foundation

## Basic Research: Anxiety, PTSD

Michael Fanselow, Ph.D., and Stephanie Bissiere, Ph.D., were part of a team that uncovered a previously unexplored target for anti-anxiety treatments—gap junctions in the brain, which, if blocked with drugs, could prevent fear memories from forming.



2011 DI



2010 YI

## Next Generation Therapies: Depression and Bipolar

Carlos A. Zarate, M.D., pioneered research on rapid-acting antidepressants, such as ketamine, demonstrating rapid antidepressant effects in treatment-resistant patients with depression and bipolar disorder.



2011 Outstanding Achievement in Mood Disorders Research Prizewinner  
1996 YI, 2005 II

## Basic Research: OCD

Stephanie Dulawa, Ph.D., and colleagues isolated a single neurotransmitter receptor in a specific brain region responsible for OCD-like symptoms, offering a new avenue for developing better treatments in a disease where there is only one successful therapy to date.



2007 YI

## Basic Research: Autism

Schahram Akbarian, M.D., Ph.D., and colleagues were the first to map epigenetic changes in neurons from the brains of individuals with autism, providing empirical evidence that epigenetic alterations—changes in gene expression caused by mechanisms other than changes in the underlying DNA sequence—may play an important role in the disease.



SC  
1993 and 2000 YI