A Sampling of NARSAD Grants at Work: **Highlights from 2012**

Basic Research: Depression

Ronald S. Duman, Ph.D. Discovers how stress and depression can shrink the brain



SC, 2002 Outstanding Achievement in Mood **Disorders Research** Prizewinner 1989 YI, 1997 II, 2005 DI

Basic Research: Autism

Identify chemicals in the brain that improve symptoms of Fragile X Syndrome (FXS), the most common known genetic cause of autism



1997 II

Olivier Manzoni, Ph.D. 2010 II

> Daniele Piomelli, Ph.D 1988, 1990 YI, 1999 II, 2005, 2009 DI



Carlos Zarate, M.D.

Basic Research: Bipolar Disorder, Depression, Schizophrenia Chiara Nosarti, Ph.D.

Demonstrates that premature birth heightens risk for mental illness



rapid-acting antidepressant, ketamine



2008 V

Diagnostic Tools / Early Intervention: Depression Andrew Miller, M.D.,

Demonstrates antidepressant response by treating inflammation—patient responsiveness predicted with simple blood test



Diagnostic Tools / Early Intervention: Schizophrenia

Anil Malhotra, M.D.

Identification of gene variant linked to antipsychotic-medication-induced weight gain—could help optimize treatment decisions



SC, 1999 YI, 2001 and 2006 II

Next Generation Therapies: Anxiety / Depression Olivier Berton, Ph.D.

Identification of protein linked to natural resiliency to stress points to new treatment possibility



Next Generation Therapies: Depression

In separate research projects, investigators demonstrate how dopamine neurons are linked to depression, opening new pathway for treatment

> Karl Deisseroth, M.D., Ph.D. SC, 2005 YI



Eric Nestler, M.D., Ph.D. SC, 2008 Outstanding Achievement in Cognitive Neuroscience Research Prizewinner, 2009 Outstanding Achievement in Mood Disorders **Research Prizewinner, 1996 DI**

Next Generation Therapies: Schizophrenia

Show targeted computer 'brain training' improves behavioral symptoms and brain activity in schizophrenia

2003, 2007 YI, 2009 II



Karuna Subramaniam, Ph.D. 2010 YI



Sophia Vinogradov, M.D. 2000 II

SC = Brain & Behavior Research Foundation Scientific Council Member NARSAD Grantees: YI = Young Investigator II = Independent Investigator DI = Distinguished Investigator





New Technologies: Schizophrenia Paola Dazzan, M.D.

Diagnostic Tools / Early Intervention: Depression

Discovers biological predictor for patient responsiveness to

Develops new technology that can predict future course of illness after first psychotic episode

2011 Outstanding Achievement in Mood Disorders Research Prizewinner

1996 YI, 2005 II