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I. GENERAL BIOGRAPHICAL INFORMATION

A. Personal

- 1. Name: Sanjay Johan Mathew, M.D.
- 2. Citizenship: U.S.

B. Education

- 1. Undergraduate Education: Dartmouth College/Hanover, NH, A.B. Biology, 1991
- 2. Medical Education: Baylor College of Medicine/Houston, TX, M.D., 1997
- 3. Postgraduate Training
 - A. Columbia-Presbyterian Hospital/New York, NY, Internship, 1997-1998
 - B. New York State Psychiatric Institute (NYSPI)/New York Presbyterian, Residency, 1998-2001
 - C. Columbia University/NIMH T32 Research Fellowship in Mood/Anxiety Disorders (advisors: Harold Sackeim, Ph.D., Jack Gorman, M.D.), 2001-2004

C. Academic Appointments

- 1. Faculty position(s) at Baylor College of Medicine:
 - A. Professor of Psychiatry (with Tenure), Menninger Dept of Psychiatry, 2016-present
 - B. Staff Physician, Michael E. Debakey VA Medical Center, 2010-present
 - C. Director, Mood & Anxiety Disorders Program, 2010-present
 - D. Johnson Family Chair for Research in Psychiatry, 2014-present
 - E. Brown Foundation Chair for Psychopharmacology of Mood Disorders, 2012-2014
 - F. Associate Professor, Menninger Dept of Psychiatry, 2010-2016
- 2. Previous faculty position(s) at other institutions:
 - A. Investigator, The Methodist Hospital Research Institute, 2010-2014
 - B. Associate Professor of Psychiatry, Mount Sinai School of Medicine (MSSM), 2009
 - C. Director, Mood & Anxiety Disorders Program, MSSM, 2008-2009
 - D. Associate Professor, Graduate School of Biological Sciences, MSSM, 2009
 - E. Assistant Professor of Psychiatry, MSSM, 2004-2008
 - F. Assistant Professor of Clinical Psychiatry, Columbia University College of Physicians & Surgeons, 7/1/04-7/31/04
 - G. Attending Physician, Brain Behavior Clinic and ECT service, NYSPI, 7/1/02-7/31/04
 - H Instructor/Assistant in Psychiatry Columbia University 7/1/01-6/30/04



- 3. Faculty appointment(s) at other institutions while at BCM:
 - A. Professorial lecturer, Mount Sinai School of Medicine, 2010-present
- D. Other advanced training/experience: (with locations, dates and sources of support)
 - Formal Sabbatical leave: N/A
 - 2. Other specialized training following academic appointment:
 - A. Medical License #211078, New York, 1998-
 - B. Diplomate, American Board of Psychiatry and Neurology, 2002 (recertification in 2012)

2

- C. Medical License #N5849, Texas, 2010- (registered through 8/31/17)
- D. Buprenorphine Prescribing Course, 2015 (DATA Waiver #56844)

E. Other information

- 1. Honors or Awards
 - A. Hilde Bruch Medical Student Excellence Award, Baylor College of Medicine, 1997
 - B. Ethics Track Certificate, Baylor College of Medicine, 1997
 - C. Columbia University House Staff Research Award, 1998
 - D. American Psychiatric Association/Lilly Resident Research Award, 2001
 - E. Anxiety Disorders Association of America Trainee Travel Award, 2001
 - F. Arnold P. Gold Foundation Outstanding Resident Teaching Award, 2001
 - G. Distinguished Laughlin Fellow, Columbia Univ College of Physicians & Surgeons, 2001
 - H. Columbia University Alumni Association Outstanding Teaching Award, 2001
 - I. American Psychiatric Association Colloquium for Young Investigators, 2001
 - J. American College of Neuropsychopharmacology Memorial Travel Award, 2003
 - K. NARSAD Young Investigator Award, 2001 and 2006
 - L. American Foundation for Suicide Prevention Pfizer Travel Award, 2007
 - M. Dr. Harold and Golden Lamport Research Award, Mount Sinai School of Medicine, 2007
 - N. Excellence in Psychiatry Education Award, Mount Sinai Dept. of Psychiatry, 2008
 - O. Associate Member (Elected), American College of Neuropsychopharmacology, 2009
 - P. NARSAD Independent Investigator Award, 2009
 - Q. Corresponding Member (Invited), European College of Neuropsychopharmacology, 2010
 - R. Nominee, Ziskind-Somerfeld Award, Society of Biological Psychiatry, 2010
 - S. Faculty Recognition Award, Mount Sinai School of Medicine, Dept of Education, 2010
 - T. Outstanding Faculty Teaching Award, Selected by BCM Graduating Psychiatry Resident Class, 2012
 - U. "Young Leader in Mental Health", The Menninger Clinic Our Future in Mind Program, 2012
 - V. Researcher of the Year (Finalist), Psychiatry, Michael E. Debakey VA Medical Center, 2012
 - W. Best Doctors, Inc. 2011-2016
 - X. Member (Elected), American College of Neuropsychopharmacology 2016

2. Board Eligibility/Certification

A. Diplomate, American Board of Psychiatry and Neurology, 2002 (recertification 2012) Certified- Meeting MOC Requirements (2013-2015)



II. RESEARCH INFORMATION

A. Research Support

1. Current:

A. NMDA Receptor Modulation for Hyperarousal in PTSD. National Institute of Mental Health. Principal Investigator. 09/21/16-7/31/18. R61MH10540-01. \$463,080 (direct cost, yr 1)

3

- B. *Ketamine for Treatment-Resistant Late-Life Depression*. Department of Veterans Affairs (Merit Grant). Principal Investigator; 9/1/2015-8/31/2020; CX001205-01A1. \$702,025.00
- C. A Phase 2a Study to Evaluate the Kappa Opioid Receptor as a Target for the Treatment of Mood and Anxiety Spectrum Disorders by Evaluating Whether LY2456302 Engages Key Neural Circuitry Related to the Hedonic Response. National Institute of Mental Health. Subcontract Principal Investigator (Krystal, PI, Duke University); 08/29/13-12/31/17; Contract No: HHSN27120120000061; \$477,590.00.
- D. Electroconvulsive Therapy versus Ketamine for Severe Resistant Depression. Patient-Centered Outcomes Research Institute (PCORI). Subcontract PI (Anand, PI, Cleveland Clinic); 9/1/16-8/31/2021. \$2,155,825.00
- E. Switching versus Augmentation in Treatment-resistant Depression. PCORI. Subcontract PI (Papakostas, PI, Mass General); 9/1/16-8/31/2021. \$777,280.00
- F. Developing Neuronal KCNQ Channel Modulators for Mood Disorders. National Institute of Mental Health. Subcontract PI (Murrough PI, Mt Sinai); 12/1/16-11/30/18. R61MH111932-01. \$206,281.00 (direct costs, yr 1)
- G. A Double-Blind, Placebo-Controlled, Multicenter Study of Sirukumab as Adjunctive Treatment to a Monoaminergic Antidepressant in Adults with Major Depressive Disorder. Janssen Research & Development; Principal Investigator; 2016-2017; CNTO136MDD2001; \$105,000.00
- H. A Randomized, Double-blind, Multicenter, Active-controlled Study to Evaluate the Efficacy, Safety, and Tolerability of Fixed Doses of Intranasal Esketamine Plus an Oral Antidepressant in Adult Subjects with Treatment-resistant Depression. Janssen Research & Development; Coinvestigator (Shah, PI). \$1,440,000.00 (maximum)
- The role of the reward system in suicidal ideation and behavior. American Foundation for Suicide Prevention, Standard Research Grant. Co-investigator (Salas, PI); 2015-2017; SRG-2-125-14. \$90,000;

2. Awarded (not yet begun):

A. Glutamate receptor and kynurenine pathway functioning in the pathobiology of Gulf War Illness. Department of Defense Office of Congressionally Directed Medical Research Programs (CDMRP). Gulf War Illness Research Program New Investigator Award. Co-investigator (Lijffijt, PI); 2017-2020. Total Budget: \$760,405.

3. Mentor/Advisor (past):

A. Functional MRI studies of emotion in depression and rapid antidepressant response. National Institute of Mental Health; Co-mentor (Murrough, PI, Mount Sinai School of Medicine); 2011-2016; \$176,357; K23MH094707



B. Brief potent glutamatergic modulation: applications for cocaine dependence. National Institute on Drug Abuse; Co-mentor (Dakwar, PI, Columbia University); 2011-2016; \$186,192; K23DA031771-02

- Funded Research/Grant Support—Past:
 - A. Double-Blind, Placebo-Controlled, Proof-of-Concept (POC) Trial of Ketamine Therapy in Treatment-resistant Depression (TRD). National Institute of Mental Health. Subcontract Principal Investigator (Fava, PI, Massachusetts General Hospital); 09/12/13-02/28/17; Contract No.: HHSN2712011000006I; \$791,887.00
 - B. 2/3-Efficacy and Tolerability of Riluzole in Treatment-Resistant Depression. National Institute of Mental Health; Principal Investigator; 2010-2015; \$750,000 (Direct Costs); R01 MH085054-03.
 - C. 2/3-Efficacy and Tolerability of Riluzole in Treatment-Resistant Depression: Neurotropic factors and peripheral biomarkers. National Institute of Mental Health; Principal Investigator; 2012-2015; \$68,467; R01 MH085054-03S1 [scientific supplement]
 - D. Evaluation of the Efficacy of the CRF1 Antagonist GSK561679 in Women with PTSD. National Institute of Mental Health; Subcontract PI (Mayberg, PI, Emory University); 2012-2015; \$332.155; U19MH069056.
 - E. Optimization of IV Ketamine for Treatment Resistant Major Depression. National Institute of Mental Health; Principal Investigator; 2009-2014; \$1,064,832; R01 MH081870.
 - F. The role of habenula in major depression. Brain Behavior Research Foundation Young Investigator Award; Co-mentor (Ralas, PI, Baylor College of Medicine); 2013-2015; \$60,000.
 - G. *NMDA Receptor in Psychosis: Specific Auto-antibodies.* FY2016 MEDVAMC Seed Grant Award. Co-investigator (M. Davis, PI). 10/01/15-09/30/16; \$25,000.00
 - H. *Ketamine vapour as a treatment for acute suicidality*. MEDVAMC Seed Grant Award. Coinvestigator (Salas, PI). 01/01/15-12/31/15; \$25,000.00
 - A double-blind, randomized, placebo controlled study to evaluate the efficacy and safety of intranasal esketamine for the rapid reduction of the symptoms of major depressive disorder, including suicidal ideation, in subjects assessed to be at imminent risk for suicide. Janssen Research & Development. Site Pl. 9/1/2014-6/30/2015; \$15,000.00
 - J. A 12-week, Randomized, Double-Blind, Controlled Evaluation followed by an Open-Label 12-Week Follow-up period of the impact of genesight psychotropic on response to psychotropic treatment in outpatients suffering from a Major Depressive Disorder (MDD) and having hadwithin the current episode- An inadequate response to at least one psychotropic medication included in genesight psychotropic. Assurex. Co-investigator (Shah, PI). 10/28/2014-10/27/2019; \$134,400.00
 - K. An exploratory, multicenter, single-blind, fMRI study of fixed-dose brexpiprazole (OPC-34712) as an adjunctive treatment in adults with major depressive disorder and irritability. Otsuka Pharmaceutical Co., Ltd. Principal Investigator. 06/01/15-05/31/16; \$182,416.00
 - L. Multicenter, Randomized, Double-blind, Parallel Group, Placebo-controlled, Phase II Efficacy and Safety Study of 2 Dose Groups of AZD6765 Adjunct to Current Antidepressant Therapy in Patients with Major Depressive Disorder who exhibit an Inadequate Response to Antidepressants. AstraZeneca; Principal Investigator, 2013-2014, \$200,000.



M. Efficacy and safety of RO4995819 versus placebo as adjunctive therapy in patients with major depressive disorders. Roche Pharmaceuticals. Co-investigator (Shah, PI); 2012-2013, \$129,031.82. 5

- N. *Blood Biomarkers of Ketamine Response.* NARSAD: The Brain Behavior Fund, Independent Investigator Award; Principal Investigator; 2009-2013; \$100,000.
- O. *Proton MRS Studies in Generalized Anxiety Disorder.* **National Institute of Mental Health**; Principal Investigator; 2004-2009; \$756,000; K23
- P. A multicenter, randomized, double-blind, active-controlled, comparative, fixed-dose, dose-response study of the efficacy and safety of BMS-820836 in patients with treatment-resistant major depression. Bristol-Myers Squibb. Co-investigator (Shah, PI); 2011-2013. \$207,285.72
- Q. A Randomized, Double-Blind, Parallel-Group, Active-and Placebo-Controlled Study to Assess the Efficacy and Safety of JNJ-26489112 in Adult Subjects with Major Depressive Disorder. Johnson and Johnson; Co-investigator (Shah, PI); 2010-2011. \$71,109.49.
- R. Randomized, placebo-controlled trial of an AMPAkine in major depressive disorder. National Institute of Mental Health; Co-Investigator (Charney, PI). 2006-2008; \$455,157; U01
- S. Emory-GSK-NIMH Collaborative Mood Disorders Initiative. National Institute of Mental Health; Co-Investigator (Nemeroff, PI, Emory University School of Medicine). 2004-2009; Center: \$1,221,997; Mount Sinai Site: \$216,387; U19
- T. Ketamine as a Rapid Treatment for Post-Traumatic Stress Disorder. Department of Army/USAMRAA; Co-Investigator (Charney, PI). 2008-2012; \$691,685.
- U. A 4-Week, Randomized, Double-blind, Parallel-Group Placebo-Controlled Study to Investigate the Safety and Efficacy of EVT 101 as Monotherapy in Patients With Treatment-Resistant Major Depression. Evotec Neurosciences GmbH; Co-Investigator (Shah, Pl). 2010-2011. \$198,872.03
- V. 1H MRS Neurometabolites as Diagnostic Markers for Chronic Fatigue Syndrome. Chronic Fatigue and Immune Dysfunction Syndrome (CFIDS) Association Research Grant; Co-Investigator; (Shungu, PI); 2009-2010; \$100,000.
- W. A randomized, double-blind, parallel-group, placebo-controlled, fixed-dose study evaluating the efficacy and safety of orvepitant in subjects with major depressive disorder. GlaxoSmithKline Pharmaceuticals; Co-Principal Investigator (MSSM site); 2009-2010; \$96,000.
- X. An exploratory fixed dose randomized double-blind parallel group placebo-controlled study of the safety and of the therapeutic effects of Ro 4917523 in patients with treatment-resistant depression. Hoffman La-Roche; Principal Investigator; 2008-2010; \$422,877.
- Y. A double-blind, placebo-controlled study of aripiprazole adjunctive to antidepressant therapy (ADT) among outpatients with MDD who have responded inadequately to prior ADT. MGH Clinical Trials Network and Institute; Principal Investigator (MSSM site) (Fava, PI, MGH); 2008-2009; \$119,350.
- Z. Continuation Riluzole in the Prevention of Relapse Following IV Ketamine in Major Depression. NARSAD, Young Investigator Award; Principal Investigator; 2006-2008; \$60,000.
- AA. Continuation IV Ketamine for Treatment Resistant Depression. NARSAD, Distinguished Investigator Award; Co-Investigator (Charney, PI). 2006-2007; \$100,000.



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