

**AMENDMENT FOR DISTRIBUTION 12.0 -- BIPOLAR DISORDER
NIMH HUMAN GENETICS INITIATIVE DISTRIBUTION AGREEMENT**

NOW, THEREFORE, it is mutually agreed that the National Institute of Mental Health (NIMH) Human Genetics Initiative Distribution Agreement signed by NIMH, the center for Genetic Studies, and _____ **(PLEASE PRINT)** as the Receiving Institution is amended to include the following text in paragraph 14 under the section, *Acknowledgement for Bipolar Disorder Biomaterials and Clinical Data*:

NIMH Study BP 0 -- Data and biomaterials were collected in four projects that participated in the National Institute of Mental Health (NIMH) Bipolar Disorder Genetics Initiative. From 1991-98, the Principal Investigators and Co-Investigators were: Indiana University, Indianapolis, IN, U01 MH46282, John Nurnberger, M.D., Ph.D., Marvin Miller, M.D., and Elizabeth Bowman, M.D.; Washington University, St. Louis, MO, U01 MH46280, Theodore Reich, M.D., Allison Goate, Ph.D., and John Rice, Ph.D.; Johns Hopkins University, Baltimore, MD, U01 MH46274, J. Raymond DePaulo, Jr., M.D., Sylvia Simpson, M.D., MPH, and Colin Stine, Ph.D.; NIMH Intramural Research Program, Clinical Neurogenetics Branch, Bethesda, MD, Elliot Gershon, M.D., Diane Kazuba, B.A., and Elizabeth Maxwell, M.S.W.

NIMH Study 1 -- Data and biomaterials were collected as part of ten projects that participated in the National Institute of Mental Health (NIMH) Bipolar Disorder Genetics Initiative. From 1999-03, the Principal Investigators and Co-Investigators were: Indiana University, Indianapolis, IN, R01 MH59545, John Nurnberger, M.D., Ph.D., Marvin J. Miller, M.D., Elizabeth S. Bowman, M.D., N. Leela Rau, M.D., P. Ryan Moe, M.D., Nalini Samavedy, M.D., Rif El-Mallakh, M.D. (at University of Louisville), Hussein Manji, M.D. (at Wayne State University), Debra A. Glitz, M.D. (at Wayne State University), Eric T. Meyer, M.S., Carrie Smiley, R.N., Tatiana Foroud, Ph.D., Leah Flury, M.S., Danielle M. Dick, Ph.D., Howard Edenberg, Ph.D.; Washington University, St. Louis, MO, R01 MH059534, John Rice, Ph.D., Theodore Reich, M.D., Allison Goate, Ph.D., Laura Bierut, M.D.; Johns Hopkins University, Baltimore, MD, R01 MH59533, Melvin McInnis, M.D., J. Raymond DePaulo, Jr., M.D., Dean F. MacKinnon, M.D., Francis M. Mondimore, M.D., James B. Potash, M.D., Peter P. Zandi, Ph.D., Dimitrios Avramopoulos, and Jennifer Payne; University of Pennsylvania, PA, R01 MH59553, Wade Berrettini, M.D., Ph.D.; University of California at Irvine, CA, R01 MH60068, William Byerley, M.D., and Mark Vawter, M.D.; University of Iowa, IA, R01 MH059548, William Coryell, M.D., and Raymond Crowe, M.D.; University of Chicago, IL, R01 MH59535, Elliot Gershon, M.D., Judith Badner, Ph.D., Francis McMahon, M.D., Chunyu Liu, Ph.D., Alan Sanders, M.D., Maria Caserta, Steven Dinwiddie, M.D., Tu Nguyen, Donna Harakal; University of California at San Diego, CA, R01 MH59567, John Kelsoe, M.D., Rebecca McKinney, B.A.; Rush University, IL, R01 MH059556, William Scheftner, M.D., Howard M. Kravitz, D.O., M.P.H., Diana Marta, B.S., Annette Vaughn-Brown, M.S.N., R.N., and Laurie Bederow, M.A.; NIMH Intramural Research Program, Bethesda, MD, 1Z01MH002810-01, Francis J. McMahon, M.D., Layla Kassem, PsyD, Sevilla Detera-Wadleigh, Ph.D., Lisa Austin, Ph.D., Dennis L. Murphy, M.D.

NIMH Study 2 -- Data and biomaterials were collected and supported by NIMH grant R01 MH59602 (to Miron Baron, M.D.) and by funds from the Columbia Genome Center and the New York State Office of Mental Health. The main contributors to this work were Miron Baron, M.D. (Principal Investigator), Jean Endicott, Ph.D. (Co-Principal Investigator), Jo Ellen Loth, M.S.W., John Nee, Ph.D., Richard Blumenthal, Ph.D., Lawrence Sharpe, M.D., Barbara Lilliston, M.S.W., Melissa Smith, M.A., and Kristine

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Trautman, M.S.W., all from Columbia University Department of Psychiatry, New York, NY, USA. A small subset of the sample was collected in Israel in collaboration with Bernard Lerer, M.D. and Kyra Kanyas, M.S. from the Hadassah - Hebrew University Medical Center, Jerusalem, Israel. We are grateful to the patients and their family members for their cooperation and support, and to the treatment facilities and other organizations that collaborated with us in identifying families.

NIMH Study 12 -- In addition, families were contributed by Dr. Carlos Pato at the University of Southern California and his staff. This work was sponsored by NIMH grants MH52618 and MH058693. Genotyping services were provided by the Center for Inherited Disease Research (CIDR). CIDR is fully funded through a federal contract from the National Institutes of Health to The Johns Hopkins University, Contract Number N01-HG-65403.

NIMH Study 19 -- Data and biomaterials were collected for the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD), a multi-center, longitudinal (5-8 year) project selected from responses to RFP #NIMH-98-DS-0001, "Treatment for Bipolar Disorder." The project was led by Gary Sachs, M.D., and coordinated by Massachusetts General Hospital in Boston, MA. The NIMH grant number was 2N01MH080001-001.

NIMH Study 40 -- Data and biomaterials were collected as part of eleven projects (Study 40) that participated in the National Institute of Mental Health (NIMH) Bipolar Disorder Genetics Initiative. From 2003-2007, the Principal Investigators and Co-Investigators were: Indiana University, Indianapolis, IN, R01 MH59545, John Nurnberger, M.D., Ph.D., Marvin J. Miller, M.D., Elizabeth S. Bowman, M.D., N. Leela Rau, M.D., P. Ryan Moe, M.D., Nalini Samavedy, M.D., Rif El-Mallakh, M.D. (at University of Louisville), Hussein Manji, M.D. (at Johnson and Johnson), Debra A. Glitz, M.D. (at Wayne State University), Eric T. Meyer, Ph.D., M.S. (at Oxford University, UK), Carrie Smiley, R.N., Tatiana Foroud, Ph.D., Leah Flury, M.S., Danielle M. Dick, Ph.D. (at Virginia Commonwealth University), Howard Edenberg, Ph.D.; Washington University, St. Louis, MO, R01 MH059534, John Rice, Ph.D., Theodore Reich, M.D., Allison Goate, Ph.D., Laura Bierut, M.D. K02 DA21237; Johns Hopkins University, Baltimore, M.D., R01 MH59533, Melvin McInnis, M.D., J. Raymond DePaulo, Jr., M.D., Dean F. MacKinnon, M.D., Francis M. Mondimore, M.D., James B. Potash, M.D., Peter P. Zandi, Ph.D., Dimitrios Avramopoulos, and Jennifer Payne; University of Pennsylvania, PA, R01 MH59553, Wade Berrettini, M.D., Ph.D.; University of California at San Francisco, CA, R01 MH60068, William Byerley, M.D., and Sophia Vinogradov, M.D.; University of Iowa, IA, R01 MH059548, William Coryell, M.D., and Raymond Crowe, M.D.; University of Chicago, IL, R01 MH59535, Elliot Gershon, M.D., Judith Badner, Ph.D., Francis McMahon, M.D., Chunyu Liu, Ph.D., Alan Sanders, M.D., Maria Caserta, Steven Dinwiddie, M.D., Tu Nguyen, Donna Harakal; University of California at San Diego, CA, R01 MH59567, John Kelsoe, M.D., Rebecca McKinney, B.A.; Rush University, IL, R01 MH059556, William Scheftner, M.D., Howard M. Kravitz, D.O., M.P.H., Diana Marta, B.S., Annette Vaughn-Brown, M.S.N., R.N., and Laurie Bederow, M.A.; NIMH Intramural Research Program, Bethesda, MD, 1Z01MH002810-01, Francis J. McMahon, M.D., Layla Kassem, Psy.D., Sevilla Detera-Wadleigh, Ph.D, Lisa Austin, Ph.D, Dennis L. Murphy, M.D.; Howard University, William B. Lawson, M.D., Ph.D., Evarista Nwulia, M.D., and Maria Hipolito, M.D. This work was supported by the NIH grants P50CA89392

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from the National Cancer Institute and 5K02DA021237 from the National Institute of Drug Abuse.

NIMH Study 48 (Part 1) Genetic Linkage and Association in Bipolar Disorder – This project was Application Number NA_00038551 (JH IRB#). Principal Investigators are: Francis McMahon, M.D. (National Institute of Mental Health), J. Raymond DePaulo, Jr., M.D. (Johns Hopkins University School of Medicine), and Elliot S. Gershon, M.D. (University of Chicago Medical Center).

NIMH Study 48 (Part 2) Amish Mennonite Bipolar Genetics Study (AmBiGen) – This project was supported by grant # ZIA MH002843-11 DIRP. Principal Investigators were: Francis McMahon, M.D. (National Institute of Mental Health), and Thomas Schulze, M.D. (University Medical Center Göttingen, Germany). These additional people have made significant contributions towards the generation and analysis of the data: Natalie Anderson, Emily Besancon, Meghan Blattner, Stephanie Cardenas, David T. Chen, Gloria Faraci, Kelly Gill, Liping Hou, Layla Kassem, Fabiana Lopes, Thomas G. Schulze, and Lexie Wille.

NIMH Study 49 -- Data and biomaterials used in this research report were collected by the International Neuro-Genetics Association of Spanish America and the United States (INGASU), and funded by NIMH grant MH69856 (Genetics of Bipolar Disorder in Latino Populations) to principal investigator Dr. Michael Escamilla (Paul L. Foster School of Medicine, Texas Tech University Health Science Center, El Paso, Texas). Additional principal investigators who participated in this grant were Dr. Alvaro Jerez (Centro Internacional de Trastornos Afectivos y de la Conducta Adictiva-CITACA, Guatemala), Dr. Ricardo Mendoza (University of California at Los Angeles-Harbor), Dr. Humberto Nicolini (Medical and Family Research Group, Carracci S.C., Mexico City, Mexico), Dr. Henriette Raventos (University of Costa Rica, San Jose, Costa Rica), and Dr. Alfonso Ontiveros (Instituto de Informacion de Investigacion en Salud Mental, Monterrey, Mexico). In addition to Drs. Escamilla and Nicolini, the following contributed to the diagnostic best estimation process: Drs. Salvador Contreras, Albana Dassori and Rolando Medina (University of Texas Health Science Center at San Antonio), Dr. Regina Armas (University of California at San Francisco), Dr. Javier Contreras (University of Costa Rica), and Drs. Mercedes Ramirez and Juan Zavala (Paul L. Foster School of Medicine, Texas Tech University Health Science Center).

NIMH Study 55 -- Data and biomaterials were collected in four projects that participated in the Adolescents at High Risk for Familial Bipolar Disorder funded by NIMH. From 2004-2009, the Principal Investigators and Co-Investigators were: Indiana University, Indianapolis, IN, R01MH068009, John Nurnberger, M.D., Ph.D., Robert Schweitzer, M.D., Gina Laite, M.D., Kelly Rhoadarmer, M.D., Vegas Coleman, M.D., and Elliot S. Gershon, M.D.; University of Chicago, Wade Berrettini, M.D., Ph.D.; University of Pennsylvania, Carrie Fisher, R.N., and Mariano Erpe, M.S.; University of Michigan, Ann Arbor, MI, R01MH068006, Melvin McInnis, M.D., Masoud Kamali, M.D., and Christine Brucksch, R.N.; Johns Hopkins University, Baltimore, MD, R01MH068006, Elizabeth Kastelic, M.D., and Holly C. Wilcox, Ph.D.; Washington University, St. Louis, MO, R01MH073151, Wendy Reich, Ph.D., Anne Glowinski, M.D., M.P.E., Julia Morgan, M.A., and Caroline Drain, M.H.S.

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NIMH Study 71 -- The collection of Costa Rican and Colombian pedigrees samples was supported by National Institutes of Health Grants R01MH095454 (NBF). The UCLA group was further supported by grants P30NS062691 (NBF), K23MH074644-01 (CEB), and K08MH086786 (SCF). The University of Antioquia group was also supported by a grant from Colciencias and Codi (CLJ). Investigators: Nelson Freimer, M.D., Carrie Bearden, Ph.D., Scott Fears, M.D., Ph.D., Rita Cantor, Ph.D., Victor Reus, M.D., Carlos Lopez Jaramillo, M.D., Ph.D., Gabriel Macaya, Ph.D., Chiara Sabatti, Ph.D., Lori Altshuler, M.D., and George Bartzokis, M.D. Collaborating Institutions: University of California, Los Angeles; University of California, San Francisco; Stanford University; Universidad de Antioquia (Medellin, Colombia); Universidad de Costa Rica (San Jose, Costa Rica).

NIMH Study 75 - The implementation of treatment and collection of data was supported by the Agency for Healthcare Research and Quality 1R01HS01937101 (AHRQ). This study was conducted at 10 sites. Collaborating Institutions: Massachusetts General Hospital; Case Western Reserve; Stanford University; University of Pittsburgh; University of Texas Health Science Center at San Antonio; University of Pennsylvania; Cornell University; Vanderbilt University; University of Michigan; University of Cincinnati, Lindner Center of HOPE.

The overall Principal Investigator (PI) of the study was Andrew A Nierenberg, MD from Massachusetts General Hospital. The study was conducted at the following 10 sites: Case Western Reserve (Joseph R. Calabrese, MD, site PI), Massachusetts General Hospital (Dan V. Iosifescu, MD, site PI), Stanford University (Terence A. Ketter, MD, site PI), University of Pittsburgh (Edward S. Friedman, MD, site PI), University of Texas Health Science Center at San Antonio (Charles L. Bowden, MD, site PI), University of Pennsylvania (Michael E. Thase, MD, site PI), Cornell University (James Kocsis MD, site PI), Vanderbilt University (Richard C. Shelton M.D., site PI), the University of Michigan (Melvin G. McGinnis M.D., site PI) and University of Cincinnati, Lindner Center of HOPE (Susan L. McElroy, MD, site PI).

NIMH Study 77 -- Data and biomaterials were collected as part of the International Cohort Collection for Bipolar Disorder (ICCBD), supported by the National Institute of Mental Health grant R01MH085542 and the Stanley Medical Research Institute. Data collection sites included Partners Healthcare/Massachusetts General Hospital, University of Southern California, Karolinska Institutet, and Cardiff University. Members of the International Cohort Collection for Bipolar Disorder (ICCBD): Jordan W. Smoller (principal investigator); Roy H. Perlis, Phil Hyoun Lee, Victor M. Castro, and Alison G. Hoffnagle (Massachusetts General Hospital); Pamela Sklar (principal investigator), Eli A. Stahl, Shaun M. Purcell, Douglas M. Ruderfer, Alexander W. Charney, and Panos Roussos (Icahn School of Medicine at Mount Sinai); Carlos Pato, Michele Pato, Helen Medeiros, Janet Sobell, James Knowles (University of Southern California); Nick Craddock, Ian Jones, Liz Forty, Arianna DiFlorio, and Elaine Green (Cardiff University); Lisa Jones and Katherine Dunjowski (Birmingham University); Mikael Landén, Christina Hultman, Anders Juréus, Sarah Bergen, and Oscar Svantesson (Karolinska Institutet); and Steven McCarroll, Jennifer Moran, Jordan W. Smoller, Kimberly Chambert, and Richard A. Belliveau, Jr. (Stanley Center for Psychiatric Research, Broad Institute).

NIMH Study 123 -- Data and biomaterials were collected and supported by NIMH grant R01MH084831 (to Holly A. Swartz, M.D.) at the University of Pittsburgh School of

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Medicine. The main contributors to this work were Holly A. Swartz (Principal Investigator), Ellen Frank, Ph.D., Michael Thase, M.D., Paola Rucci, Ph.D., Jill Cyranowski, Ph.D., and Vishwajit Nimgaonkar, M.D. We are grateful to and wish to thank the individuals who participated in this study; this research would not have been possible without them.

NIMH Study 140 Genome Sequencing in Extended Bipolar Pedigrees – This project was supported by grant # 3R01MH095454-02S1. Principal Investigators are: Nelson Freimer, M.D. (University of California, Los Angeles), Carlos Lopez Jaramillo, M.D., Ph.D. (Universidad de Antioquia, Medellin, Colombia), and Gabriel Macaya, Ph.D./Henriette Raventos, M.D. (Universidad de Costa Rica, San Jose, Costa Rica).

Most importantly, we thank the families who have participated in and contributed to these studies.

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DATED SIGNATURES

Principal Investigator, **PLEASE PRINT**

Signature and **Date**, Principal Investigator

Signature and **Date**, Receiving Institution's Authorized Representative

Signature and **Date**, NIMH Repository & Genomics Resource's Authorized Representative, Rutgers University

Signature and **Date**, NIMH's Authorized Representative