

## **Genetic Schizophrenia Risk Variants Jointly Modulate Total Brain and White Matter Volume**

### ***Supplement 2***

#### **Affiliations for All Members of the PGC Consortium**

Center for Human Genetic Research, Massachusetts General Hospital, Boston, Massachusetts, USA.

Stephan Ripke,  
Pamela Sklar,  
Lizzy Rossin,  
Douglas M Ruderfer,  
Mark J Daly

Department of Psychiatry and Behavioral Sciences, NorthShore University HealthSystem, Evanston, Illinois, USA.

Alan R Sanders,  
Pablo V Gejman  
Jubao Duan

Department of Psychiatry and Behavioral Sciences, University of Chicago, Chicago, Illinois, USA.

Alan R Sanders,  
Pablo V Gejman

Virginia Institute for Psychiatric and Behavioral Genetics, Virginia Commonwealth University School of Medicine, Richmond, Virginia, USA.

Kenneth S Kendler,  
Brion S Maher,  
Robert Ribble,  
Brien P Riley &  
Brandon Wormley  
Sarah E. Bergen

Department of Psychiatry, Virginia Commonwealth University School of Medicine, Richmond, Virginia, USA.

Kenneth S Kendler,  
Ayman Fanous,  
Brion S Maher,  
Robert Ribble,  
Brien P Riley &  
Brandon Wormley

Department of Human and Molecular Genetics, Virginia Commonwealth University School of Medicine, Richmond, Virginia, USA.

Kenneth S Kendler,  
Brion S Maher,  
Robert Ribble,  
Brien P Riley &  
Brandon Wormley  
Sarah E. Bergen

Department of Psychiatry and Behavioral Sciences, Stanford University, Stanford, California, USA.

Douglas F Levinson &  
Madeline Alexander

Department of Psychiatry, Mount Sinai School of Medicine, New York, New York, USA.  
Pamela Sklar &  
Jeremy M Silverman

Medical Research Council (MRC) Centre for Neuropsychiatric Genetics and Genomics,  
School of Medicine, Cardiff University, Cardiff, UK.

Peter A Holmans,  
Nicholas Craddock,  
Sarah Dwyer,  
Lyudmila Georgieva,  
Marian Hamshere,  
George K Kirov,  
Valentina Moskvina,  
Ivan Nikolov,  
Nadine Norton,  
Michael J Owen,  
Hywel J Williams,  
Nigel M Williams,  
Stan Zammit &  
Michael C O'Donovan

Department of Psychological Medicine and Neurology, School of Medicine, Cardiff  
University, Cardiff, UK.

Peter A Holmans,  
Nicholas Craddock,  
Sarah Dwyer,  
Lyudmila Georgieva,  
Marian Hamshere,  
George K Kirov,  
Valentina Moskvina,  
Ivan Nikolov,  
Nadine Norton,  
Michael J Owen,  
Hywel J Williams,  
Nigel M Williams,  
Stan Zammit &  
Michael C O'Donovan

Department of Biostatistics, University of North Carolina, Chapel Hill, North Carolina,  
USA.

Dan-Yu Lin

Department of Medical Genetics, University Medical Center Utrecht, Utrecht, The  
Netherlands.

Roel A Ophoff &  
Eric Strengman

Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Utrecht, The  
Netherlands.

Roel A Ophoff &  
Eric Strengman

University of California at Los Angeles (UCLA) Center for Neurobehavioral Genetics,  
University of California at Los Angeles, Los Angeles, California, USA.

Roel A Ophoff,  
Rita M Cantor &  
Nelson B Freimer

Department of Human Genetics, University of California at Los Angeles, Los Angeles,  
California, USA.

Roel A Ophoff &  
Rita M Cantor

Psychiatry Section, Institute of Clinical Medicine, University of Oslo, Oslo, Norway.

Ole A Andreassen,  
Ingrid Agartz,  
Srdjan Djurovic,  
Morten Mattingsdal &  
Ingrid Melle

Department of Psychiatry, Oslo University Hospital, Oslo, Norway.

Ole A Andreassen &  
Ingrid Melle

Broad Institute, Cambridge, Massachusetts, USA.

Edward Scolnick,  
Shaun Purcell &  
Benjamin M Neale

Department of Genomics, Life and Brain Center, University of Bonn, Bonn, Germany.

Sven Cichon,  
Manuel Mattheisen &  
Markus M Nöthen

Institute of Neuroscience and Medicine (INM-1), Research Center Juelich, Juelich,  
Germany.

Sven Cichon

Institute of Human Genetics, University of Bonn, Bonn, Germany.

Sven Cichon,  
Manuel Mattheisen &  
Markus M Nöthen

Institute of Medical Sciences, University of Aberdeen, Foresterhill, Aberdeen, UK.

David St. Clair

Neuropsychiatric Genetics Research Group, Trinity College Dublin, Dublin, Ireland.

Aiden Corvin,  
Paul Cormican,  
Gary Donohoe,  
Michael Gill,  
Elaine Kenny,  
Derek W Morris,  
Colm T O'Dushlaine &  
Emma M Quinn

Molecular Psychiatry Laboratory, Research Department of Mental Health Sciences,  
University College London Medical School, Windeyer Institute of Medical Sciences,  
London, UK.

Hugh Gurling,  
Nicholas Bass,

Khalid Choudhury,  
Susmita Datta,  
Robert Krasucki,  
Jacob Lawrence,  
Andrew McQuillin,  
Jonathan Pimm &  
Vinay Puri

Institute of Biological Psychiatry, Mental Health Center (MHC) Sct. Hans, Copenhagen  
University Hospital, Roskilde, Denmark.

Thomas Werge,  
Linh Duong,  
Thomas Hansen,  
Andrés Ingason,  
Klaus D Jakobsen,  
Line Olsen,  
Henrik B Rasmussen &  
Johan H Thygesen

Molecular and Clinical Neurobiology, Department of Psychiatry, Ludwig-Maximilians-  
University, Munich, Germany.

Dan Rujescu,  
Marion Friedl,  
Ina Giegling,  
Annette M Hartmann,  
Heike Konnerth &  
Bettina Konte

Division of Psychiatry, University of Edinburgh, Royal Edinburgh Hospital, Edinburgh, UK.

Douglas H R Blackwood,  
Alan W Maclean,  
Pat Malloy,  
Kevin A McGhee &  
Andrew McIntosh

Keck School of Medicine, University of Southern California, Los Angeles, California, USA.

Carlos N Pato &  
Michele T Pato

Department of Psychiatry, Division of Research, The Zucker Hillside Hospital Division of  
the North Shore-Long Island Jewish Health System, Glen Oaks, New York, USA.

Anil K Malhotra &  
Todd Lencz

Center for Psychiatric Neuroscience, The Feinstein Institute for Medical Research,  
Manhasset, New York, USA.

Anil K Malhotra &  
Todd Lencz

Department of Psychiatry and Behavioral Science, Albert Einstein College of Medicine of  
Yeshiva University, New York, New York, USA.

Anil K Malhotra &  
Todd Lencz

Department of Non-Communicable Disease Epidemiology, London School of Hygiene and  
Tropical Medicine, London, UK.

Frank Dudbridge

Queensland Statistical Genetics Laboratory, Queensland Institute of Medical Research,  
Brisbane, Queensland, Australia.  
Peter M Visscher

Vrije Universiteit (VU), Center for Neurogenomics and Cognitive Research (CNCR),  
Department of Functional Genomics, Amsterdam, The Netherlands.  
Danielle Posthuma

VU Medical Centre, Department of Medical Genomics, Amsterdam, The Netherlands.  
Danielle Posthuma

Washington Veteran's Affairs Medical Center, Washington, DC, USA.  
Ayman Fanous &  
Richard L Amdur

Department of Psychiatry, Georgetown University School of Medicine, Washington, DC,  
USA.  
Ayman Fanous &  
Richard L Amdur

deCODE Genetics, Reykjavik, Iceland.  
Hreinn Stefansson,  
Stacy Steinberg &  
Kari Stefansson

Queensland Brain Institute, University of Queensland, Brisbane, Queensland, Australia.  
Bryan J Mowry,  
John J McGrath &  
Deborah A Nertney

Queensland Centre for Mental Health Research, University of Queensland, Brisbane,  
Queensland, Australia.  
Bryan J Mowry,  
John J McGrath &  
Deborah A Nertney

Mental Health Research Center, Russian Academy of Medical Sciences, Moscow, Russia.  
Vera Golimbet

University Psychiatric Centre, Catholic University Leuven, Kortenberg, Belgium.  
Marc De Hert &  
Ruud van Winkel

Department of Clinical Neuroscience, Human Brain Informatics (HUBIN) Project,  
Karolinska Institutet and Hospital, Stockholm, Sweden.  
Erik G Jönsson &  
Lars Terenius

Semmelweis University, Department of Psychiatry and Psychotherapy, Budapest,  
Hungary.  
István Bitter &  
János M Réthelyi

Institute for Molecular Medicine Finland (FIMM), University of Helsinki, Helsinki, Finland.  
Olli P H Pietiläinen &  
Leena Peltonen

Department of Medical Genetics, University of Helsinki, Helsinki, Finland.  
Olli P H Pietiläinen &  
Leena Peltonen

Social, Genetic and Developmental Psychiatry Centre, Institute of Psychiatry, King's College, London, UK.  
David A Collier

Section of Psychiatry and Clinical Psychology, University of Verona, Verona, Italy.  
Sarah Tosato &  
Mirella Ruggeri

Department of Research, Diakonhjemmet Hospital, Oslo, Norway.  
Ingrid Agartz

State Mental Hospital, Haar, Germany.  
Margot Albus

Department of Psychiatry and Behavioral Sciences, Emory University, Atlanta, Georgia, USA.  
Farooq Amin

Department of Psychiatry and Behavioral Sciences, Atlanta Veterans Affairs Medical Center, Atlanta, Georgia, USA.  
Farooq Amin

Department of Psychiatry, University of Iowa Carver College of Medicine, Iowa City, Iowa, USA.  
Donald W Black

Institute of Human Genetics, University of Aarhus, Aarhus, Denmark.  
Anders D Børglum &  
Ditte Demontis

Centre for Psychiatric Research, Aarhus University Hospital, Risskov, Denmark.  
Anders D Børglum &  
Ole Mors

University of Queensland Diamantina Institute, Princess Alexandra Hospital, University of Queensland, Brisbane, Queensland, Australia.  
Matthew A Brown &  
Patrick A Danoy

University Medical Center Groningen, Department of Psychiatry, University of Groningen, Groningen, The Netherlands.  
Richard Bruggeman &  
Durk Wiersma

School of Nursing, Louisiana State University Health Sciences Center, New Orleans, Louisiana, USA.  
Nancy G Buccola

Department of Psychiatry, University of California at San Francisco, San Francisco, California, USA.  
William F Byerley

NCIRE (Northern California Institute for Research and Education), San Francisco, California, USA.

William F Byerley

Department of Psychiatry, Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Utrecht, The Netherlands.

Wiepke Cahn &

René S Kahn

School of Psychiatry, University of New South Wales and Schizophrenia Research Institute, Sydney, New South Wales, Australia.

Vaughan J Carr

Department of Psychiatry, University of Queensland, Royal Brisbane Hospital, Brisbane, Australia.

Stanley V Catts

Department of Psychiatry, Washington University, St. Louis, Missouri, USA.

C Robert Cloninger

Academic Medical Centre, University of Amsterdam, Department of Psychiatry, Amsterdam, The Netherlands.

Lieuwe de Haan &

Don H Linszen

Department of Psychiatry, University of Athens Medical School, Athens, Greece.

Dimitris Dikeos &

George Papadimitriou

Department of Medical Genetics, Oslo University Hospital, Oslo, Norway.

Srdjan Djurovic

Wellcome Trust Centre for Human Genetics, Oxford, UK.

Peter Donnelly,

Chris C A Spencer &

Amy Strange

Department of Statistics, University of Oxford, Oxford, UK.

Peter Donnelly

Mental Health Center Copenhagen, Copenhagen University Hospital, Copenhagen, Denmark.

Anders Fink-Jensen

Department of Psychiatry, University of Colorado Denver, Aurora, Colorado, USA.

Robert Freedman &

Ann Olincy

Center for Clinical Intervention and Neuropsychiatric Schizophrenia Research, Mental Health Center Glostrup, Copenhagen University Hospital, Glostrup, Denmark.

Birte Glenthøj

INSERM, Institut de Myologie, Hôpital de la Pitié-Salpêtrière, Paris, France.

Stephanie Godard

Illumina, Inc., La Jolla, California, USA.

Mark Hansen

School of Electrical Engineering and Computing Science, University of Newcastle,  
Newcastle, New South Wales, Australia.  
Frans A Henskens

Section of Neonatal Screening and Hormones, Department of Clinical Chemistry and  
Immunology, The State Serum Institute, Copenhagen, Denmark.  
David M Hougaard

Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm,  
Sweden.  
Christina M Hultman,  
Paul Lichtenstein &  
Patrick F Sullivan

Centre for Clinical Research in Neuropsychiatry, School of Psychiatry and Clinical  
Neurosciences, The University of Western Australia, Perth, Western Australia, Australia.  
Assen V Jablensky

Department of Child and Adolescent Psychiatry, Pierre and Marie Curie Faculty of  
Medicine, Paris, France.  
Maurice Jay &  
Claudine Laurent

Department of Clinical Pharmacology, Bispebjerg University Hospital, Copenhagen,  
Denmark.  
Gesche Jürgens

Department of Psychology, University of Colorado, Boulder, Boulder, Colorado, USA.  
Matthew C Keller

Department of Psychiatry and Psychology, School of Mental Health and Neuroscience,  
European Graduate School of Neuroscience (EURON), South Limburg Mental Health  
Research and Teaching Network (SEARCH), Maastricht University Medical Centre,  
Maastricht, The Netherlands.  
Gunter Kenis &  
Ruud van Winkel

Department of Genetics, University of North Carolina at Chapel Hill, Chapel Hill, North  
Carolina, USA.  
Yunjung Kim &  
Patrick F Sullivan

Maastricht University Medical Centre, South Limburg Mental Health Research and  
Teaching Network, Maastricht, The Netherlands.  
Lydia Krabbendam,  
Inez Myin-Germeys &  
Jim van Os

Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of  
Medicine, Baltimore, Maryland, USA.  
Virginia K Lasseter,  
Gerald Nestadt &  
Ann E Pulver

Department of Psychiatry, Hadassah-Hebrew University Medical Center, Jerusalem,  
Israel.

F Bernard Lerer

Department of Biostatistics, Johns Hopkins University Bloomberg School of Public Health,  
Baltimore, Maryland, USA.

Kung-Yee Liang

Department of Psychiatry, Columbia University, New York, New York, USA.

Jeffrey A Lieberman &

T Scott Stroup

Department of Mental Health and Substance Abuse Services, National Institute for Health  
and Welfare, Helsinki, Finland.

Jouko Lönnqvist &

Jaana Suvisaari

Schizophrenia Research Institute, Sydney and Centre for Brain and Mental Health  
Research, University of Newcastle, Newcastle, New South Wales, Australia.

Carmel M Loughland

Department of Psychiatry, University of Bonn, Bonn, Germany.

Wolfgang Maier &

Marcella Rietschel

Laboratoire de Génétique Moléculaire de la Neurotransmission et des Processus  
Neurodégénératifs, Centre National de la Recherche Scientifique, Hôpital de la Pitié  
Salpêtrière, Paris, France.

Jacques Mallet

Institute of Medical Biometry, Informatics and Epidemiology (IMBIE), University of Bonn,  
Bonn, Germany.

Manuel Mattheisen

Department of Research, Sørlandet Hospital, Kristiansand, Norway.

Morten Mattingdal

Queensland Centre for Mental Health Research, The Park Centre for Mental Health,  
Wacol, Queensland, Australia.

Duncan E McLean

Functional NeuroImaging Laboratory, School of Psychology, University of Newcastle,  
Sydney, New South Wales, Australia.

Patricia T Michie

Schizophrenia Research Institute, Sydney, New South Wales, Australia.

Patricia T Michie &

Ulrich Schall

Department of Psychiatry, First Psychiatric Clinic, Alexander University Hospital, Sofia,  
Bulgaria.

Vihra Milanova

National Centre for Register-Based Research, University of Aarhus, Aarhus, Denmark.

Preben B Mortensen

Department of Psychiatry, University of Toronto, Toronto, Canada.

Pierandrea Muglia

NeuroSearch A/S, Ballerup, Denmark.  
Pierandrea Muglia

Unit for Psychiatric Research, Aalborg Psychiatric Hospital, Aalborg, Denmark.  
Jimmi Nielsen

Psychiatric Centre Copenhagen, Copenhagen University Hospital, Copenhagen, Denmark.  
Merete Nordentoft

Department of Psychiatry, Queens University, Belfast, Ireland.  
F Anthony O'Neill

ARoS Applied Biotechnology A/S, Skejby, Denmark.  
Torben F Ørntoft

Department of Molecular Medicine, Aarhus University Hospital, Skejby, Denmark.  
Torben F Ørntoft

Melbourne Neuropsychiatry Centre, Department of Psychiatry, The University of Melbourne and Melbourne Health, Melbourne, Victoria, Australia.  
Christos Pantelis

Wellcome Trust Sanger Institute, Wellcome Trust Genome Campus, Hinxton, Cambridge, UK.  
Leena Peltonen

Department of Psychiatry, National University Hospital, Reykjavik, Iceland.  
Hannes Petursson &  
Engilbert Sigurdsson

Strathclyde Institute of Pharmacy and Biomedical Sciences, The John Arbuthnott Building, University of Strathclyde, Glasgow, UK.  
Ben Pickard

Department of Psychiatry, University of Oxford, Warneford Hospital, Headington, Oxford, UK.  
Digby Quested

Department of Genetic Epidemiology in Psychiatry, Central Institute of Mental Health, University of Heidelberg, Mannheim, Germany.  
Marcella Rietschel &  
Thomas G Schulze

Priority Centre for Brain and Mental Health Research, University of Newcastle, Sydney, New South Wales, Australia.  
Ulrich Schall

Department of Psychiatry and Psychotherapy, Georg-August-University, Göttingen, Germany.  
Thomas G Schulze

School of Psychiatry and Clinical Neurosciences, University of Western Australia, Perth, Western Australia, Australia.  
Sibylle G Schwab &  
Dieter B Wildenauer

Department of Psychiatry, University of Erlangen-Nuremberg, Erlangen, Germany.

Sibylle G Schwab

Centre for Medical Research, Western Australian Institute for Medical Research,  
University of Western Australia, Perth, Western Australia, Australia.  
Sibylle G Schwab

Centre for Information Based Medicine, University of Newcastle, Hunter Medical Research  
Institute, Newcastle and Schizophrenia Research Institute, Sydney, New South Wales,  
Australia.  
Rodney J Scott

Division of Cancer Epidemiology and Genetics, National Cancer Institute, Bethesda,  
Maryland, USA.  
Jianxin Shi

Department of Psychiatry, University of Iceland, Reykjavik, Iceland.  
Engilbert Sigurdsson

Department of Psychiatry, Veterans Affairs Medical Center, New York, New York, USA.  
Jeremy M Silverman

West Berkshire National Health Service (NHS) Trust, Reading, UK.  
Srinivasa Thirumalai

Mental Health Center Frederiksberg, Copenhagen University Hospital, Copenhagen,  
Denmark.  
Sally Timm

Department of Medical Genetics, University Hospital Maichin Dom, Sofia, Bulgaria.  
Draga Toncheva

Department of Pharmacy, Virginia Commonwealth University, Richmond, Virginia, USA.  
Edwin van den Oord

Rudolf Magnus Institute of Neuroscience, Department of Neurology, Universitair Medisch  
Centrum (UMC) Utrecht, Utrecht, The Netherlands.  
Jan Veldink

The Health Research Board, Dublin, Ireland.  
Dermot Walsh

Mental Health Center Amager, Copenhagen University Hospital, Copenhagen, Denmark.  
August G Wang

Centre for Clinical Research in Neuropsychiatry, Graylands Hospital, Mt Claremont,  
Western Australia, Australia.  
Dieter B Wildenauer

Department of Psychiatry, University of North Carolina at Chapel Hill, Chapel Hill, North  
Carolina, USA.  
Patrick F Sullivan

Department of Epidemiology, University of North Carolina at Chapel Hill, Chapel Hill,  
North Carolina, USA.  
Patrick F Sullivan

Terwisscha van Scheltinga *et al.*

Deceased.  
Maurice Jay,  
Virginia K Lasseter &  
Leena Peltonen