

Biological Psychiatry

A Journal of Psychiatric Neuroscience and Therapeutics

Volume 70, Number 1, July 1, 2011

CNTRICS II: DEVELOPING IMAGING BIOMARKERS FOR SCHIZOPHRENIA

IN THIS ISSUE – JULY 1ST

- 1 **A brief summary of the articles appearing in this issue of *Biological Psychiatry*.**

EDITORIAL

- 3 ***Biological Psychiatry: A Time of Opportunity, a Time of Challenge***
John H. Krystal

COMMENTARY

- 5 **Standardization, Integration, and Sharing—Leveraging Research Investments**
Thomas R. Insel, Sarah E. Morris, and Robert K. Heinsen
» See companion articles on pages 7, 13, 19, and 28

REVIEWS

- 7 **Cognitive Neuroscience Treatment Research to Improve Cognition in Schizophrenia II: Developing Imaging Biomarkers to Enhance Treatment Development for Schizophrenia and Related Disorders**
Cameron S. Carter, Deanna M. Barch, Edward Bullmore, James Breiling, Robert W. Buchanan, Pamela Butler, Jonathan D. Cohen, Mark Geyer, Randy Gollub, Michael F. Green, Judith Jaeger, John H. Krystal, Holly Moore, Keith Nuechterlein, Trevor Robbins, Steven Silverstein, Edward E. Smith, Milton Strauss, and Til Wykes
» See commentary on page 5

- 13 **Using Brain Imaging Measures in Studies of Procognitive Pharmacologic Agents in Schizophrenia: Psychometric and Quality Assurance Considerations**

Deanna M. Barch and Daniel H. Mathalon
» See commentary on page 5

- 19 **Transcranial Magnetic Stimulation: A Neuroscientific Probe of Cortical Function in Schizophrenia**

Shawn M. McClintock, Catarina Freitas, Lindsay Oberman, Sarah H. Lisanby, and Alvaro Pascual-Leone
» See commentary on page 5

- 28 **A Roadmap for the Development and Validation of Event-Related Potential Biomarkers in Schizophrenia Research**

Steven J. Luck, Daniel H. Mathalon, Brian F. O'Donnell, Matti S. Hämäläinen, Kevin M. Spencer, Daniel C. Javitt, and Peter J. Uhlhaas
» See commentary on page 5

PRIORITY COMMUNICATIONS

- 35 **The Complement Control-Related Genes *CSMD1* and *CSMD2* Associate to Schizophrenia**
Bjarte Håvik, Stephanie Le Hellard, Marcella Rietschel, Helle Lybæk, Srdjan Djurovic, Manuel Mattheisen, Thomas W. Mühleisen, Franziska Degenhardt, Lutz Priebe, Wolfgang Maier, Rene Breuer, Thomas G. Schulze, Ingrid Agartz, Ingrid Melle, Thomas Hansen, Clive R. Bramham, Markus M. Nöthen, Beth Stevens, Thomas Werge, Ole A. Andreassen, Sven Cichon, and Vidar M. Steen

- 43** **Variable Global Dysconnectivity and Individual Differences in Schizophrenia**
Michael W. Cole, Alan Anticevic, Grega Repovs, and Deanna Barch

ARCHIVAL REPORTS

- 51** **ANXA7, PPP3CB, DNAJC9, and ZMYND17 Genes at Chromosome 10q22 Associated with the Subgroup of Schizophrenia with Deficits in Attention and Executive Function**

Chih-Min Liu, Cathy S.-J. Fann, Chien-Yu Chen, Yu-Li Liu, Yen-Jen Oyang, Wei-Chih Yang, Chien-Ching Chang, Chun-Chiang Wen, Wei J. Chen, Tzung-Jeng Hwang, Ming H. Hsieh, Chen-Chung Liu, Stephen V. Faraone, Ming T. Tsuang, and Hai-Gwo Hwu

- 59** **At-Risk Variant in TCF7L2 for Type II Diabetes Increases Risk of Schizophrenia**

Thomas Hansen, Andrés Ingason, Srdjan Djurovic, Ingrid Melle, Mogens Fenger, Omar Gustafsson, Klaus D. Jakobsen, Henrik B. Rasmussen, Sarah Tosato, Marcella Rietschel, Josef Frank, Mike Owen, Chiara Bonetto, Jaana Suvisaari, Johan Hilge Thygesen, Hannes Pétursson, Jouko Lönnqvist, Engilbert Sigurdsson, Ina Giegling, Nick Craddock, Michael C. O'Donovan, Mirella Ruggeri, Sven Cichon, Roel A. Ophoff, Olli Pietiläinen, Leena Peltonen, Markus M. Nöthen, Dan Rujescu, David St. Clair, David A. Collier, Ole A. Andreassen, and Thomas Werge

- 64** **General and Specific Functional Connectivity Disturbances in First-Episode Schizophrenia During Cognitive Control Performance**
Alex Fornito, Jong Yoon, Andrew Zalesky, Edward T. Bullmore, and Cameron S. Carter

- 73** **Impaired Hierarchical Control Within the Lateral Prefrontal Cortex in Schizophrenia**
Guillaume Barbalat, Valerian Chambon, Philippe J.D. Domenech, Chrystèle Ody, Etienne Koechlin, Nicolas Franck, and Chloé Farrer

- 81** **Exaggerated Brain Activation During Emotion Processing in Unaffected Siblings of Patients with Schizophrenia**


Mariët van Buuren, Matthijs Vink, Anca E. Rapcencu, and René S. Kahn

- 88** **Are There Progressive Brain Changes in Schizophrenia? A Meta-Analysis of Structural Magnetic Resonance Imaging Studies**

Bayanne Olabi, Ian Ellison-Wright, Andrew M. McIntosh, Stephen J. Wood, Ed Bullmore, and Stephen M. Lawrie

- 97** **Bimodal Distribution of Polyunsaturated Fatty Acids in Schizophrenia Suggests Two Endophenotypes of the Disorder**
Håvard Bentsen, Dag K. Solberg, Helge Refsum, Jon Michael Gran, Thomas Böhmer, Peter A. Torjesen, Ola Halvorsen, and Odd Lingjærde

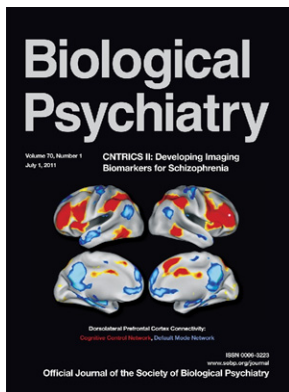
CORRESPONDENCE

 **e1 Hippocampal Glutamate Levels and Striatal Dopamine D_{2/3} Receptor Occupancy in Subjects at Ultra High Risk of Psychosis**

Oswald J.N. Bloemen, Tobias Gleich, Mariken B. de Koning, Fabiana da Silva Alvis, Lieuwe de Haan, Don H. Linszen, Jan Booij, and Thérèse A.M.J. van Amelsvoort

 **e3 Reply to: Hippocampal Glutamate Levels and Striatal Dopamine D_{2/3} Receptor Occupancy in Subjects at Ultra High Risk of Psychosis**

James M. Stone, Oliver D. Howes, Alice Egerton, Joseph Kambeitz, Paul Allen, David J. Lythgoe, Ruth L. O'Gorman, Mary A. McLean, Gareth J. Barker, and Philip McGuire



The dorsolateral prefrontal cortex whole-brain seed map on the cover is from Figure S4 in the supplement of Cole *et al.*, pages 43-50, in this issue. This indicates the dorsolateral prefrontal cortex region is part of the cognitive control network (in red), which is typically anti-correlated with the default mode network (in blue).



= content available online only

www.sobp.org/journal