

# Biological Psychiatry

A Journal of Psychiatric Neuroscience and Therapeutics

Volume 86, Number 7, October 1, 2019

## SCHIZOPHRENIA: GENOMICS TO THERAPEUTICS

### IN THIS ISSUE - OCTOBER 1ST

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

### COMMENTARIES

- 494 **Role of Kappa Opioid Receptors in Symptoms of Schizophrenia: What Is the Neurobiology?**  
*Anantha Shekhar*  
» See corresponding article on page 502
- 497 **Genomic Triplication of the Glycine Decarboxylase Gene and N-Methyl-D-Aspartate Receptor Hypofunction: Improvement by Glycine and D-Cycloserine**  
*Kenji Hashimoto*  
» See corresponding article on page 523
- 499 **Population-Based Mapping of Polygenic Risk for Schizophrenia on the Human Brain: New Opportunities to Capture the Dimensional Aspects of Severe Mental Disorders**  
*Lars T. Westlye, Dag Alnæs, Dennis van der Meer, Tobias Kaufmann, and Ole A. Andreassen*  
» See corresponding article on page 536

### CLINICAL COMMENTARY

- e19 **From Generation to Generation: Rethinking “Soul Wounds” and Historical Trauma**  
*Stefanie L. Gillson and David A. Ross*

### EARLY CAREER INVESTIGATOR COMMENTARY

- e21 **Looking Under the Hood of Convergent Behavioral Deficits in Schizophrenia and Autism**  
*Jennifer H. Foss-Feig*  
» See corresponding article on page 557

### REVIEWS

- 502 **The Role of Dynorphin and the Kappa Opioid Receptor in the Symptomatology of Schizophrenia: A Review of the Evidence**  
*Samuel David Clark and Anissa Abi-Dargham*  
» See commentary on page 494
- 512 **Multiscale Neuroscience of Psychiatric Disorders**  
*Martijn P. van den Heuvel, Lianne H. Scholtens, and René S. Kahn*

### ARCHIVAL REPORTS

- 523 **Targeted Treatment of Individuals With Psychosis Carrying a Copy Number Variant Containing a Genomic Triplication of the Glycine Decarboxylase Gene**  
*J. Alexander Bodkin, Michael J. Coleman, Laura J. Godfrey, Claudia M.B. Carvalho, Charity J. Morgan, Raymond F. Suckow, Thea Anderson, Dost Öngür, Marc J. Kaufman, Kathryn E. Lewandowski, Arthur J. Siegel, Elliot Waldstreicher, Christopher M. Grochowski, Daniel C. Javitt, Dan Rujescu, Scott Hebring, Richard Weinshilboum, Stephanie Burgos Rodriguez, Colette Kirchhoff, Timothy Visscher, Alexander Vuckovic, Allison Fialkowski, Shane McCarthy, Dheeraj Malhotra, Jonathan Sebat,*

Donald C. Goff, James I. Hudson,  
James R. Lupski, Joseph T. Coyle,  
Uwe Rudolph, and Deborah L. Levy  
» See commentary on page 497

**536 Impact of Polygenic Risk for Schizophrenia on Cortical Structure in UK Biobank**

Emma Neilson, Xueyi Shen, Simon R. Cox,  
Toni-Kim Clarke, Eleanor M. Wigmore,  
Jude Gibson, David M. Howard,  
Mark J. Adams, Mat A. Harris, Gail Davies,  
Ian J. Deary, Heather C. Whalley,  
Andrew M. McIntosh, and Stephen M. Lawrie  
» See commentary on page 499

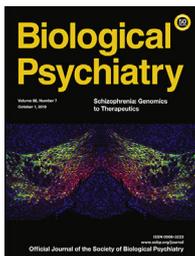
**545 The Association Between Familial Risk and Brain Abnormalities Is Disease Specific: An ENIGMA-Relatives Study of Schizophrenia and Bipolar Disorder**

Sonja M.C. de Zwarte, Rachel M. Brouwer,  
Ingrid Agartz, Martin Alda, André Aleman,  
Kathryn I. Alpert, Carrie E. Bearden,  
Alessandro Bertolino, Catherine Bois,  
Aurora Bonvino, Elvira Bramon,  
Elizabeth E.L. Buimer, Wiepke Cahn,  
Dara M. Cannon, Tyrone D. Cannon,  
Xavier Caseras, Josefina Castro-Fornieles,  
Qiang Chen, Yoonho Chung,  
Elena De la Serna, Annabella Di Giorgio,  
Gaelle E. Doucet, Mehmet Cagdas Eker,  
Susanne Erk, Scott C. Fears, Sonya F. Foley,  
Sophia Frangou, Andrew Frankland,  
Janice M. Fullerton, David C. Glahn,  
Vina M. Goghari, Aaron L. Goldman,  
Ali Saffet Gonul, Oliver Gruber,  
Lieuwe de Haan, Tomas Hajek,  
Emma L. Hawkins, Andreas Heinz,

Manon H.J. Hillegers, Hilleke E. Hulshoff Pol,  
Christina M. Hultman, Martin Ingvar,  
Viktoria Johansson, Erik G. Jönsson,  
Fergus Kane, Matthew J. Kempton,  
Marinka M.G. Koenis, Miloslav Kopecek,  
Lydia Krabbendam, Bernd Krämer,  
Stephen M. Lawrie, Rhoshel K. Lenroot,  
Machteld Marcelis, Jan-Bernard C. Marsman,  
Venkata S. Mattay, Colm McDonald,  
Andreas Meyer-Lindenberg, Stijn Michielse,  
Philip B. Mitchell, Dolores Moreno,  
Robin M. Murray, Benson Mwangi, Pablo Najt,  
Emma Neilson, Jason Newport, Jim van Os,  
Bronwyn Overs, Aysegul Ozerdem,  
Marco M. Picchioni, Anja Richter,  
Gloria Roberts, Aybala Saricicek Aydogan,  
Peter R. Schofield, Fatma Simsek,  
Jair C. Soares, Gisela Sugranyes,  
Timothea Touloupoulou, Giulia Tronchin,  
Henrik Walter, Lei Wang, Daniel R. Weinberger,  
Heather C. Whalley, Nefize Yalin,  
Ole A. Andreassen, Christopher R.K. Ching,  
Theo G.M. van Erp, Jessica A. Turner,  
Neda Jahanshad, Paul M. Thompson,  
René S. Kahn, and Neeltje E.M. van Haren

**557 Differential Patterns of Visual Sensory Alteration Underlying Face Emotion Recognition Impairment and Motion Perception Deficits in Schizophrenia and Autism Spectrum Disorder**

Antígona Martínez, Russell Tobe,  
Elisa C. Dias, Babak A. Ardekani,  
Jeremy Veenstra-VanderWeele, Gaurav Patel,  
Melissa Breland, Alexis Lieval, Gail Silipo, and  
Daniel C. Javitt  
» See commentary on page e21



The fluorescent image featured on the cover depicts a horizontal section through the mouse ventral tegmental area immunostained for tyrosine hydroxylase (red), dopamine transporter (green), and nuclear marker NeuN (blue). This represents work by Romoli *et al.* in which the authors found that neonatal nicotine exposure enhances drug preference in adult mice through an increase in the number of ventral tegmental area dopamine neurons. See *Biol Psychiatry* 86:344–355.

 = content available online only

[www.sobp.org/journal](http://www.sobp.org/journal)