

News, Literature, and Events in Braingenethics

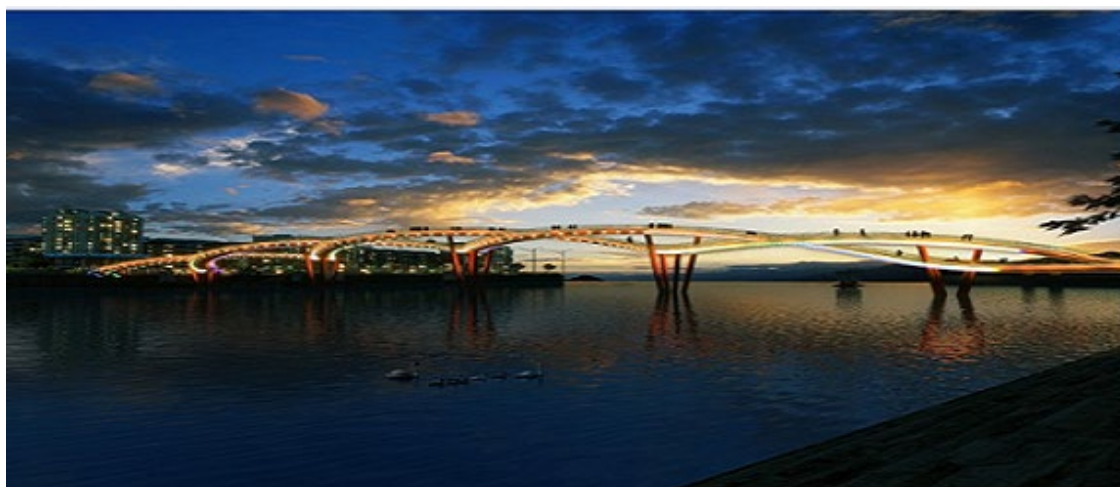
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Braingenethics Update

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The next Braingenethics Update (Vol. 4, No. 10) will appear in January 2018.

In the Media

[What If You Knew Alzheimer's Was Coming for You?](#)

Pagan Kennedy

While genetic tests can help predict risk of developing Alzheimer's disease (AD), they don't tell us anything about the current state of the brain.

[How Seeing Problems in the Brain Makes Stigma Disappear](#)

David Rosenberg

Increasingly objective measures of mental illness help to alleviate misperceptions of blameworthiness.

In the Literature

[Testing Positive for a Genetic Predisposition to Depression Magnifies Retrospective Memory for Depressive Symptoms](#)

Matthew Lebowitz et al.

Depression is increasingly construed as genetically based. This research examined whether merely telling people that they have a genetic predisposition to depression can cause them to retroactively remember having experienced it. That many people did highlights potentially harmful consequences of personalized genetic testing in mental health. Read more [here](#).

[DNA Scans for Infants Raise Questions of Privacy and Discrimination](#)

Newsroom

Newborn genetic screening might someday save lives, but the privacy risks were it to become the standard are significant.

[Why Race Is Not a Thing, According to Genetics](#)

Simon Worrall

Scientists are unlocking the secrets to how we're all related—to each other and to the species that came before us.

[Eugenics 2.0: We're at the Dawn of Choosing Embryos by Health, Height, and More](#)

Antonio Regalado

Will you be among the first to pick your kids' IQ? As machine learning unlocks predictions from DNA databases, scientists say parents could have choices never before possible.

[The Public's Distrust of Biotech Is Deepening. Commercialization May Be to Blame.](#)

Jim Kozubek

A cutting-edge study foreshadows what genetic science might bestow to human health, but the public is rightfully wary.

More In the Literature

[Large-Scale Cognitive GWAS Meta-Analysis Reveals Tissue-Specific Neural Expression and Potential Nootropic Drug Targets](#)

Max Lam et al.

[Ethical Issues in Alzheimer's Disease Research Involving Human Subjects](#)

Dena Davis

As we aggressively pursue research to cure and prevent Alzheimer's disease, the important ethical issues outlined in this paper need to be included in research plans and supported by the NIH.

[Linkage, Whole Genome Sequence, and Biological Data Implicate Variants in RAB10 in Alzheimer's Disease Resilience](#)

Perry G. Ridge et al.

This study used a pedigree-based approach to identify genetic variants that segregate with AD resilience. The results suggest that *RAB10* could be a promising therapeutic target for AD prevention. This gene discovery approach could serve as a model for future efforts to identify rare variants for AD and other complex human diseases.

[Psychiatric Genomics: An Update and an Agenda](#)

Patrick Sullivan et al.

The Psychiatric Genomics Consortium has embarked on a program of research designed to deliver “actionable” findings—genomic results that 1) reveal fundamental biology, 2) inform clinical practice, and 3) deliver new therapeutic targets. Its initial findings suggest that we are entering a phase of accelerated genetic discovery for multiple psychiatric disorders.

[Increasing Evidence for an Association Between Amyotrophic Lateral Sclerosis and Psychiatric Disorders](#)

Miguel Chuquilin et al.

It has long been thought that ALS is the result of a single exposure or genetic mutation. Recent studies on the genetics of ALS have changed this view.

This large genome-wide association study identified 70 independent genomic loci associated with general cognitive ability. Genetic correlations were identified between cognitive ability and disparate phenotypes including psychiatric disorders, several autoimmune disorders, longevity, and maternal age at first birth.

[Genome-Wide Association Studies of a Broad Spectrum of Antisocial Behavior](#)

Jorim Tielbeek et al.

In this study of genome-wide association data from 5 population-based cohorts and 3 target samples, antisocial behavior was associated with polygenic traits, demonstrating genetic associations with educational attainment and distinct genetic effects according to sex.

[Cross-tissue Integration of Genetic and Epigenetic Data Offers Insight into Autism Spectrum Disorder](#)

Shan V. Andrews et al.

The authors used both genetic and epigenetic information to reveal pathways that provide insights about ASD etiology and are not discoverable by genetic methods alone.

[Association between Mitochondrial DNA Haplogroup Variation and Autism Spectrum Disorders](#)

Dimitra Chalkia

This study used data from the Autism Genetic Resource Exchange cohort genome-wide association study to reveal mitochondrial DNA haplogroup variation as a significant risk factor for ASD.

[Integrating Evolutionary and Regulatory Information with a Multispecies Approach Implicates Genes and Pathways in Obsessive-Compulsive Disorder](#)

Hyun Ji Noh et al.

The authors sequenced coding and regulatory elements of 608 genes



More In the Media

[Ask the Neuroethicist: When the Neurologist Does \(or Does Not\) Have the Duty to Disclose Neurogenetic Risk](#)

Shelly Benjaminy et al.

A mother, who is psychotic but lacks insight into her condition, has a putative gene for and family history of amyotrophic lateral sclerosis (ALS). Does the neurologist have a duty to disclose that genetic risk for ALS to her son?

[Stronger Neural Connections May Trump Genetic Risk for Bipolar Disorder](#)

Aggie Mika

Healthy siblings of people with the condition harbor more cohesive connections within certain brain networks.

[Geneticists Are Starting to Unravel Evolution's Role in Mental Illness](#)

Sara Reardon

Hints emerge that past environments could have influenced psychiatric disorders.

[There's New Evidence of How Our DNA Shapes Depression and Other](#)

potentially involved in obsessive-compulsive disorder in humans, dogs, and mice, and showed that targeted sequencing plus functional annotation can identify potentially causative variants, even when genomic data are limited.

[Association of Polygenic Score for Schizophrenia and HLA Antigen and Inflammation Genes with Response to Lithium in Bipolar Affective Disorder](#)

International Consortium on Lithium Genetics

This genome-wide association study found an inverse association between genetic loading for schizophrenia risk variants and response to lithium in patients with bipolar affective disorder. Genetic variants in the HLA antigen region and the antigen presentation pathway point to the molecular underpinnings of schizophrenia and lithium treatment response.

[Genetic Risk Variants Associated with Comorbid Alcohol Dependence and Major Depression](#)

Hang Zhou et al.

This study enhances understanding of the genetic mechanisms shared between alcohol dependence and major depression and has implications both for development of medications and other treatments. Click [here](#) for further editorial comment.

[Polygenic Scores for Major Depressive Disorder and Risk of Alcohol Dependence](#)

Allan Andersen et al.

In this cohort study of 4 independent samples of 3871 individuals with alcohol dependence and 3347 individuals serving as controls, elevated polygenic risk for major depressive disorder also conveyed a significant increase in risk for alcohol dependence.

Disorders Like It

Erin Brodwin

Several recent studies suggest reliable biomarkers for several mental illnesses.

[Brain's Alertness Circuitry Conserved through Evolution](#)

National Institute of Mental Health

New brain research suggests that the brain might be wired for alertness as a survival mechanism. Read more in [Cell](#).

[Brain Imaging Reveals ADHD as a Collection of Different Disorders](#)

Newsroom

There may not be a one-size-fits-all explanation for ADHD's cause.

[Physical Inactivity, Poor Sleep Can Amplify Genetic Risk of Obesity](#)

Staff Reporter

These findings are consistent with previous reports that have indicated that low levels of physical activity and sleep magnify the genetic risk of obesity.

[Lighting up Monkey Brains](#)

Jyoti Madhusoodanan

Optogenetic and chemogenetic tools illuminate brain and behavior connections in nonhuman primates.





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