

**Chapter 1 : GOP views of accepting refugees to US turn more negative as admissions plummet**

*Toward a New Research Agenda to Improve Outcomes for Adolescent English Learners By Carola Suárez-Orozco, Vivian Louie In the wake of large-scale immigration since , English learners (ELs) have become a significant proportion of the American public school population.*

CDNA on a fundamental level and outlines the overall demand for their products and services in addition to an in-depth review of the business strategy, management discussion, and overall direction going forward. Please download the entire research report, free of charge, to ensure you are reading all relevant material information. All information in this release was accessed October 16th, Percentage calculations are performed after rounding. All amounts in millions MM , except per share amounts. Analysts expect earnings to be released on November 1st, The report will be for the fiscal period ending September 30th, Analysts expect earnings to be released on November 6th, To read the full Corindus Vascular Robotics, Inc. CVRS report, download it here: To read the full Sprouts Farmers Market, Inc. SFM report, download it here: Analysts expect earnings to be released on November 5th, Analysts expect earnings to be released on November 8th, To read the full CareDx, Inc. CDNA report, download it here: Current licensed status of several Registered Members at Fundamental Markets have been independently verified by an outside audit firm, including policy and audit records duly executed by Registered Members. Fundamental Markets makes no representations as to the completeness, accuracy, or timeliness of the material provided and all materials are subject to change without notice. Fundamental Markets has not been compensated for the publication of this press release by any of the above mentioned companies. Fundamental Markets is not a financial advisory firm, investment adviser, or broker-dealer, and does not undertake any activities that would require such registration. For our full disclaimer, disclosure, and terms of service please visit our website. For republishing permissions, please contact a partner network manager at partnership Fundamental-Markets.

*The military's research arm said Friday it will invest up to \$2 billion over the next five years toward new programs advancing artificial intelligence, stepping up both a technological arms race.*

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**Diabetes Research: Advancing Toward a Cure** George L. In the past, we only have had one promising approach to finding a cure for patients with type 1 diabetes. Now we have several possibilities related to a cure, and even prevention, both for type 1 and type 2 diabetes. Previously, research toward a cure was focused on transplantation of the cells in the pancreas that produce insulin, the islet cells or parts of the pancreas. We are now focusing on ways to understand this immune attack to find safe ways to block it. There are several ongoing studies using our knowledge of immunology to try to intervene and prevent type 1 diabetes. Another important effort is directed to regenerating islet cells"to produce insulin again"either through the use of stem cells, embryonic or adult, or other ways of engineering these cells. We are now hopeful that a large number of people with type 1 diabetes still have surviving islet cells left to regrow. This optimism has been raised by the findings that many type 1 diabetes patients may still have residual islets that have retained some function to make insulin. A recent Joslin study of people who have lived more than 50 years with type 1 diabetes indicated that even some of these patients can still make insulin. Much attention is also aimed at the causes of type 2 diabetes. The main theory involves inflammation. Joslin researchers have pursued this idea from the basic science level, now resulting in a multi-center clinical trial of humans taking anti-inflammatory drugs to see if these drugs will decrease the incidence of type 2 diabetes. In addition, diabetes investigators are working on understanding how islet cells malfunction in type 2 diabetes. What is the genetic basis for this? Our goal is to improve the compensation mechanism to prevent type 2 diabetes, and Joslin investigators are now clinically testing ways to do this. Progress in Preventing Complications There have also been breakthroughs in understanding and preventing diabetes complications. Many years of high glucose levels can damage blood vessels and nerves in the eyes, kidneys and other organs throughout the body. Research that I have pursued for 25 years, for example, has led to the development of a potential new drug. The new drug, called ruboxistaurin RBX , reduces the occurrence of moderate vision loss due to diabetes, and also looks promising for treating diabetic kidney disease and possibly heart disease. This drug evolved from a discovery: Joslin scientists uncovered a major signaling pathway at the molecular level by which high amounts of glucose damage blood vessels. RBX blocks a form of an enzyme that the Joslin team found is activated in blood vessels in eyes, kidney and the heart. Diabetes affects so many different parts of the body. To find solutions, we must bring together different types of experts so problems can be attacked from various angles. Genetics researchers concentrate on the genetic changes of people with diabetes that make them vulnerable to cardiovascular problems, such as heart attacks and stroke. Other scientists focus on the impact of insulin on the blood vessels and how this relates to cardiovascular problems. Finally, researchers who specialize in metabolism study the significance of exercise on improving the use of glucose through the body, which might also have an effect in preventing cardiovascular disease. Diabetes researchers are making great progress in understanding the basic science of diabetes. Many findings have already proceeded on the road to new treatments. For every new strategy that succeeds, the benefit to millions of people will be huge. This article originally appeared in the Special Diabetes Insert in the Nov.

**Chapter 3 : BASF to donate \$7 million toward construction of new UC Berkeley research chemistry facility**

*New research suggests toward end of Ice Age, human beings witnessed fires larger than dinosaur killer, thanks to a cosmic impact Thu, 02/01/ LAWRENCE " On a ho-hum day some 12, years ago, the Earth had emerged from another ice age.*

This article has been cited by other articles in PMC. These are interesting times for schizophrenia research. Among the many exciting signs of progress, recent genome-wide association study GWAS reports have attracted considerable attention for their unexpected findings. While many genetic factors have been identified to date by GWAS and other case-control studies, in aggregate, these factors have accounted for only a small percentage of the reported heritability of the disorder. Perhaps the most unexpected finding has been the growing recognition that nearly all genetic factors identified thus far, whether common allelic variants or rare structural variants, seem to confer somewhat comparable risk for schizophrenia and bipolar disorder and, perhaps, for other disorders such as unipolar depression, substance abuse, and even epilepsy. However, they do resonate with clinical observations that many patients present with a mix of bipolar and schizophrenia symptoms, both at a single admission and also across time. Part of the problem is that the Kraepelinian assumptions have become embedded in the machinery of regulatory agencies, granting agencies and their review committees, and journal reviewers. It is accordingly difficult to conduct studies that diverge from current, conventional thinking. The vast majority of published studies includes only one diagnostic category though articles about schizophrenia often include schizoaffective disorder and seldom examine heterogeneity within disorder categories. Thus, the inertia of diagnostic orthodoxy exerts a powerful hegemony over any alternative approaches, leaving us with much debate but little data with which to construct a new nosology. How can we move beyond these impediments to support revolutionary findings for a new, biologically validated approach to diagnosis? Over the past 2 decades, National Institute of Mental Health NIMH and other funding agencies have supported research to understand mental disorders as brain disorders. We are now at a point where we can begin to 1 create neurobiological circuit maps of behavioral and cognitive functioning and 2 explicate the ways in which activity in these circuits becomes dysregulated in mental disorders. These endeavors will likely be guided by 3 defining insights emerging from research on psychotic disorders. First, serious mental illness increasingly appears neurodevelopmental, with onset of prepsychotic symptoms in adolescence, at a time when the cortex is still developing. Second, for most disorders of cortical function, behavior and cognitive changes are late events, suggesting that biological manifestations should be apparent long before manifest psychosis. In brief, the approach is to develop a matrix for translational research, using a consensus conference process similar to the CNTRICS project for cognition in schizophrenia. Constructs represent particular circuit-based functions within these domains; eg, the Negative Affect domain includes 3 constructs of Fear, Distress, and Aggression. The columns of the matrix denote particular units of analysis and include genes, molecules, cells, circuits, behavior, and self-reports. Conference proceedings will be posted on the NIMH Web site to permit a period of continuing commentary before the specifications are finalized and posted free for downloading. Importantly, the purpose of this matrix is to guide novel, dimensionally based classifications of patients in research projects. Investigators are encouraged to study particular constructs in the matrix or compare 2 or more constructs. Thus, a study of cognitive dysfunction might include all patients presenting at a clinic for serious mental illness, irrespective of primary diagnosis; scores on a test of cognition eg, working memory might comprise the independent variable, and the dependent variable could be both functional outcome measures and symptom measures in various domains. Another study might employ a genomic structural variant eg, the 22q microdeletion as an independent variable and cognitive performance or neural circuit function as the dependent variable. For some studies, it may be useful to stratify patients according to their primary diagnosis; however, 2 important goals of this approach are to include 1 individuals who fall just short of a formal diagnosis, in order to obtain information about the dimensional aspects of the construct and 2 patients with NOS diagnoses, typically excluded from most studies in spite of marked impairment. Related to this plan, the DSM-V Psychoses Work Group is proposing clinical pathology domains

as dimensions for each psychotic disorder diagnostic class; these clinical domains may have a more meaningful relationship with neural circuit pathology than found at the heterogeneous syndrome level. What are the implications of the RDoC process for schizophrenia research? As the project develops, NIMH will place increasing priority for funding research grants on applications directed toward RDoC constructs that cut across traditional disorder boundaries, in order to focus attention on mechanisms that can illuminate the marked heterogeneity between and within disorders as well as early stages of serious mental illness. Implementation of the resultant marked shift in sample ascertainment and data analysis will no doubt require collaborative effort from the research community and NIMH. The overriding consideration, however, is that only by combining traditionally defined schizophrenia- and bipolar-spectrum patients in the same samples can we finally understand the relationships among genetics, neurobiology, symptoms, and functional capacity in these serious illnesses. Whether the result is a refinement of the Kraepelinian duality, or the emergence of multiple new disorder entities as defined by genetics and neurobiology, is an open question for the future. Such considerations emphasize the point that RDoC is conceived as a research framework that will inform future versions of nosologies and is not intended for clinical use in the near future. The rationale for the RDoC approach is to facilitate translation of modern molecular biology, neuroscience, and behavioral approaches toward explicating the pathophysiology of disorders. By targeting circuit functioning and relevant behaviors, one particular goal is that this process will direct the search for treatment targets in various domains—including new molecular entities, neuroplasticity paradigms, psychosocial treatments, and other potential interventions. Acknowledgments The Authors have declared that there are no conflicts of interest in relation to the subject of this study. Common polygenic variation contributes to risk of schizophrenia and bipolar disorder. Copy-number variations associated with neuropsychiatric conditions. Understanding the role of DISC1 in psychiatric disease and development. Craddock N, Owen MJ. The Kraepelinian dichotomy—going, going—but still not gone. An end to Kraepelinian nosology? *J Neuropsychiatry Clin Neurosci*. The major functional psychoses: Philosophical and conceptual issues underlying the debate. Kerr A, McClelland H, editors. *Concepts of Mental Disorder*: National Institute of Mental Health. Cognitive neuroscience-based approaches to measuring and improving treatment effects on cognition in schizophrenia:

**Chapter 4 : #MeToo has sparked a big shift in attitudes towards harassment, new research shows**

*The new study builds on 10 years of studies in which Zhao and her group showed that in young adult mice, loss of FMRP caused fewer new neurons being formed in a specific part of the brain called the hippocampus.*

While partisanship among voters usually does not change much on a yearly basis, some differences have widened over time, especially by educational attainment, gender and age. And these gaps are even larger when categories are combined, such as education, race and gender. While the overall balance of leaned party affiliation has not changed much in recent years, this is the first time since that as many as half of registered voters have affiliated with or leaned toward the Democratic Party. Since , the last midterm election year, there have been notable changes in party identification among several groups of voters. And as we noted in our report on party affiliation , the composition of the Republican and Democratic electorates are less alike than at any point in the past quarter-century. For decades, women have been more likely than men to identify as Democrats or lean Democratic. The share of women identifying as Democrats or leaning Democratic is up 4 percentage points since and is at one of its highest points since . Among men, there has been less recent change: That is comparable to the balance of leaned party identification since . Record share of college graduates align with Democrats. Voters who have completed college make up a third of all registered voters. The much larger group of voters who do not have a four-year degree is more evenly divided in partisan affiliation. And voters with no college experience have been moving toward the GOP: Continued racial divisions in partisan identification. These figures are little changed from recent years. Larger differences among whites by education. Millennials, especially Millennial women, tilt more Democratic. As noted in our recent report on generations and politics , Millennial voters are more likely than older generations to affiliate with the Democratic Party or lean Democratic. The gender gap in leaned party identification among Millennials is wider than among older generations. Across several dimensions — race and ethnicity, education and religious affiliation — the profile of Democratic and Democratic-leaning registered voters has changed a great deal over the past two decades. The composition of Republican and Republican-leaning voters has shown less change. When race and education are taken into account, white voters who do not have a college degree make up a diminished share of Democratic registered voters. Conservatives have long constituted the majority among Republican and Republican-leaning registered voters.

**Chapter 5 : Advancing Toward a Cure | Joslin Diabetes Center**

*NIH funds new research toward an HIV cure Five-year grants total \$14 million in first year. Three research teams focused on developing strategies that could help to rid the body of HIV are receiving grants totaling more than \$14 million a year, for up to five years, the National Institute of Allergy and Infectious Diseases (NIAID) of the.*

Fragile X is a genetic condition that affects one in 4, males and one in 6, females. Symptoms may include intellectual disability, anxiety, and attention deficit disorder, among others. Up to a third of people with fragile X also have autism. There is no cure. Using animal models and chemical compounds, the researchers also showed that rebalancing the molecular processes disrupted in fragile X can reverse some of the biological and cognitive changes associated with the syndrome. In a study published this week in the journal *Nature Communications*, researchers at the University of Wisconsin<sup>®</sup>Madison showed that the absence of FMRP can unbalance critical molecular processes within adult brain cells and lead to the neural and cognitive changes seen in fragile X. The chemical compounds tested by the researchers include Nutlin-3, an FDA-approved drug used in cancer studies, and curcumin, a natural component of the spice turmeric. The new study builds on 10 years of studies in which Zhao and her group showed that in young adult mice, loss of FMRP caused fewer new neurons being formed in a specific part of the brain called the hippocampus. Being able to create new neurons in the hippocampus throughout adult life is thought to be vital for several mental functions, including processing information, acquiring new memories and adapting to changing environments. However, it was unclear whether loss of FMRP also led to fewer new neurons being formed in the brains of older adult mice. These mice had fewer neural stem cells which give rise to new neurons in their brains. Therefore FMRP seems to be important for maintaining the population of neural stem cells that are essential for generating new neurons during adulthood. But why did mice without FMRP have fewer neural stem cells? The answer lay in epigenetics <sup>®</sup> processes that influence how the DNA in cells is interpreted and processed by cellular machinery, rather than changes to the DNA itself. Epigenetic changes <sup>®</sup> specifically in the chemical tagging of proteins called histones <sup>®</sup> reduced the number of neural stem cells in mice without FMRP. These two proteins have opposite roles in tagging histones. In fragile X neural stem cells, levels of EP were high and levels of HDAC1 were low compared to levels in stem cells without fragile X, which led to abnormally high levels of histone acetylation. When researchers applied chemical compounds that reduced the activity of EP or increased the levels of HDAC1 they could reverse the epigenetic changes. Balancing out the epigenetic changes also led to reversing some of the physiological and cognitive changes associated with fragile X. Although the bulk of the study was done using animal models, preliminary data from the postmortem analyses of human brain tissue from individuals with fragile X suggest that the epigenetic changes seen in mice lacking FMRP are also present in humans. Zhao believes that the next step is to validate their discovery in human brain cells. Because obtaining human postmortem brain tissue has been extremely challenging, the Zhao group is now exploring the compounds tested in this study in neural stem cells and neurons generated from human pluripotent stem cells. Several UW<sup>®</sup>Madison undergraduate students contributed significantly to this study, including Michael E. Stockton, Yinghua Zhao, Jessica L. Miller, and Ismat Bhuiyan. Other authors include Brian E.

**Chapter 6 : Toward New Approaches to Psychotic Disorders: The NIMH Research Domain Criteria Project**

*BERG Presents New Research Using AI and Multi-Omics Toward Identification of Multiple Clinical Outcome Biomarkers for Systemic Lupus Erythematosus at the American College of Rheumatology and.*

**Chapter 7 : Toward a New National Energy Policy: Assessing the Options | Resources for the Future**

*Oct. 31, <sup>®</sup> New research shows for the first time how the changing climate in Asia, from 5, to 1, years ago, transformed people's ability to produce food in particular places. The.*

**Chapter 8 : Brand new research shows how to build and change habits in the workplace - Learning News**

*The problem, of course, is what a new etiological framework would look like. 7 Solidly argued calls for change in clinical and research approaches to psychotic disorders go back decades (eg, Kendell 8), but relatively minor updates to diagnostic manuals have not altered the fundamental system. Part.*

**Chapter 9 : Study points researchers toward new therapies for fragile X syndrome | Research | UWâ€“Mac**

*After a year of continued tension between President Donald Trump and the news media, the partisan divides in attitudes toward the news media that widened in the wake of the presidential election remain stark, according to a new Pew Research Center analysis of survey data of 5, U.S. adults collected between Feb. 22 and March 4,*