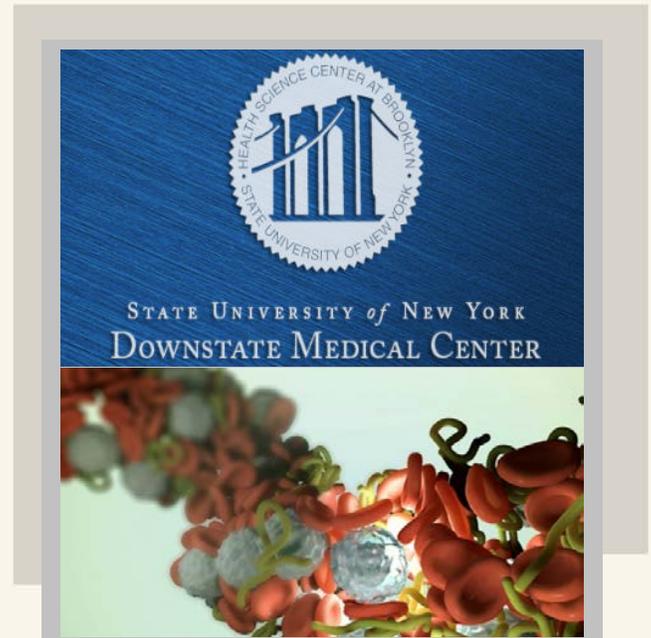


DID YOU KNOW...?

For T cells, fighting infections is demanding work. They must proliferate many times over and quickly produce a myriad of antimicrobial factors. T cells do this by switching from mitochondrial to glycolytic metabolism, but what happens when nutrients are scarce, such as in infected tissues or tumors? Blagih *et al.* examined this question by starving mouse T cells of glucose. They found that T cells are highly adaptable—they pulled back on protein translation, used glutamine as an energy source, and relied more on mitochondrial metabolism. The enzyme AMPK, an evolutionarily conserved energy sensor, facilitated these changes. <http://www.sciencedirect.com/science/article/pii/S1074761314004968>

A report in *Nature* on an analysis of 20 million biomedical papers published over the course of 70 years showing that younger researchers are more likely than their older counterparts to do innovative and creative work. The analysis, done by computer and led by economists at Stanford University and the University of Waterloo in Canada, was published by the U.S. Bureau of Economic Research. <http://www.nature.com/news/young-scientists-lead-the-way-on-fresh-ideas-1.16934>

Amyotrophic lateral sclerosis (ALS) is a devastating neurological disease with no effective treatment. Investigators at Duke University School of Medicine and collaborating institutions performed moderate-scale sequencing of DNA from patients with ALS and compared sequencing data with control subjects to identify genes contributing to predisposition to ALS. They identified several genes implicated in ALS. Knowledge obtained from this study may help identify specific targets for therapeutic intervention. <http://www.sciencemag.org/content/early/2015/02/18/science.aaa3650>



Rapid Test for Ebola Now Available

The World Health Organization has approved the first rapid diagnostic test for Ebola. The test needs no electricity, requires just a few drops of blood from a finger prick, and can return results in 15 minutes. That will be a huge help to health workers in remote areas. Current PCR-based tests require a blood sample taken by needle, secure transport of the blood to a properly equipped laboratory with trained staff, and at least several hours to return results. Depending on how far away a suspected case is from a testing laboratory, it can take more than a day to receive test results. The new test (an ELISA), produced by Corgenix, a company in Broomfield, Colorado, uses antibodies to identify a specific Ebola virus protein. The list price will be about \$15 per test but discounts will be available, he says, for bulk purchases and suppliers for use in Africa. <http://www.sciencemag.org/content/345/6204/1549.full>

RESEARCH FLASH

MARCH, 2015

NEWSWORTHY FROM NIH

The Human Placenta Project, launched last year by National Institute of Biomedical Imaging and Bioengineering (NIBIB) has a \$41.5 million funding commitment to support research to study the vital mass of tissue that sustains a developing fetus. One objective is to learn how environmental factors such as a mother's diet and exposure to pollutants affect the placenta. The \$41.5 million will support eight to nine awards lasting up to 4 years.

<http://grants.nih.gov/grants/guide/rfa-files/RFA-HD-15-034.html>

NIH is moving forward with a proposed review of "risky virology studies." Last year, the agency announced it would halt certain research on dangerous pathogens, citing risks to public health. An outside firm will assist with the risk assessment. Some scientists have called for more transparency in the process.

<http://news.sciencemag.org/biology/2015/02/nih-moving-ahead-review-risky-virology-studies>

About 71% of U.S. adults drink alcohol. Many commonly prescribed medications can interact with alcohol, including drugs to treat depression, diabetes, and high blood pressure. The combination of alcohol and medications can cause many adverse health effects. To better understand the relationship between alcohol consumption and prescription medicine use in the U.S. population, a team led by Dr. Rosalind Breslow at NIH's National Institute on Alcohol Abuse and Alcoholism (NIAAA) analyzed data from the National Health and Nutrition Examination Survey (NHANES 1999-2010). More than 26,000 adults were asked about alcohol use in the past year and over their lifetime and prescription drug use in the past month.

<http://www.ncbi.nlm.nih.gov/pubmed/25597432>

NEWSWORTHY FROM DOWNSTATE'S NHLBI -FUNDED PRIDE-CDC PROGRAM

The Program to Increase Diversity among Individuals Engaged in Cardiovascular Health-Related Research (PRIDE-CVD) is an NHLBI-funded research program to address the difficulties experienced by junior investigators in establishing independent research programs and negotiating through the academic ranks. The primary objective of this program is to increase the number of scientists and research-oriented faculty who are from ethnic groups currently under-represented in science and those with disabilities who successfully compete for external funding for scientific research in the biomedical and behavioral sciences in cardiovascular-health related topics. The Summer Institute runs this year from July 19th to August 1st 2015.

Alumni of our program, which was initiated in 2006, have been successful in securing more grants and higher publication rates than their peers. They experience greater ease and confidence in navigating a career in academia and are connected to a large support system of scholars and mentors that we have established in the nine years our program has been active.

If you are interested in taking advantage of this program, please contact:

Frank Fabris
Program Manager
PRIDE-CVD Program
SUNY Downstate Medical Center
718-836-6600 x3837
www.downstate.edu/pride

RESEARCH FLASH

MARCH, 2015

FUNDING OPPORTUNITIES



Weekly NIH funding opportunities: <http://grants.nih.gov/grants/guide/WeeklyIndex.cfm>

Information on hundreds of non-federal sources of grant and fellowship support is available on the URL below. This is provided, with permission, by the Albert Einstein College of Medicine.

<http://www.einstein.yu.edu/administration/grant-support/funding-opportunities.aspx>

Proposal CENTRAL is an e-grantmaking website shared by many government, non-profit, and private grant-making organizations.

<https://proposalcentral.altum.com/>



Additional funding information can be found on the **SUNY- RF website**. You will need to login with your SUNY RF user name and password.

https://portal.rfsuny.org/portal/page/portal/The%20Research%20Foundation%20of%20SUNY/Archive%20-%20RF%20public%20Website%20November%202014/Find_Funding/Sponsored_Program_Funding

AND FINALLY...



The Black Plague: Who was responsible? Cute, cuddly gerbils or rats?

<http://news.discovery.com/animals/gerbils-not-rats-behind-spread-of-black-plague-150224.htm>

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