MEDPULSE MEDUCATOR MCMASTER

Scientists identify mutation responsible for T cell dysfunction

Jan 2018 // USA

Dr. Patterson and colleagues identified the link between Gimap5 gene mutation and T cell dysfunction. Based on this discovery, they developed a specific treatment that successfully rescued a 16-year-old immunodeficient patient.

Yellow fever outbreak

Jan 2018 // Brazil

Yellow fever, a disease named for its associations with jaundice, causes muscle pain and nausea. Last year, Brazil witnessed its largest outbreak in decades as over 770 people were infected and more than 250 were left dead. This year, the mosquito transmitted virus has resulted in 70 deaths and this number continues to rise due to the Southern Hemisphere's rainy season. According to the World Health Organization, Brazil has initiated mass vaccination as a prophylactic measure for public safety.

Mitochondria operate at close to 50°C

Jan 2018 // France

Since our body maintains an internal temperature of 37.5°C, the mitochondrion was assumed to operate at this temperature. However, recent experiments using a temperature-sensitive fluorescent probe demonstrated that functional mitochondria operate at approximately 50°C within the body. Further validation is needed to confirm this discovery.

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AI: Strengthening regime control

Feb 2018 // China

China is investing heavily into artificial intelligence (AI). China's State Council issued an ambitious policy blueprint calling for its country to become "the world's primary AI innovation center" by 2030. China plans to build a $2.1 bilion AI technology park in Beijing's western suburbs. Despite AI's potential benefits, the insidious dangers of global competition for AI cannot be ignored, as China and other nations look to enhance their surveillance and censorship of its citizens.

Italian party repealing compulsory vaccination laws

Jan 2018 // Italy

Two Italian populist parties running for March 2018 election are promising to repeal mandatory measle vaccinations, drawing criticism for pandering to conspiracy theorists. This comes at a cost; over 5,000 cases of measles were reported last year, claiming four lives. The anti-vaccination movement began after Dr. Andrew Wakefield published an article linking the measles, mumps, and rubella vaccine to autism; although his article has since been discredited and retracted, vaccine hesitancy remains, despite the alarming 5,000 cases of measles and four deaths reported last year.

New antibody blocks malaria invasion

Jan 2018 // Australia

Scientists were able to block *P. vivax* invasion, using a novel monoclonal antibody that targets a receptor protein vital to the parasite. This discovery could bring us closer to a vaccine for malaria.