



New possibility to cure leukaemia

Scientists have found a new possibility to cure leukemia, a deadly disease that strikes patients as young as seven. Scientists found that a molecule, called CD22, can serve as a potent target for the killer cells of acute lymphoblastic leukemia. It works by genetically modifying a patient's own immune cells to seek out and attack leukemia cells that have a molecule called CD19 on their surface. (IANS)



light pulses can control neuron activity

Specially tailored, ultrafast pulses of light can trigger neurons to fire and may be used to help patients with mood problems. Researchers used light to excite a light-sensitive channel in the membrane of optogenetic mouse neurons. When the channels were excited, they allowed ions through, which caused the neurons to fire. (Xinhua)

PET VET



Dr. Rajani Rajesh

Feline Lower Urinary Tract Infection (FLUTI)

Feline lower urinary tract disease involves the structures that make up the lower portion of the urinary tract. Urinary bladder and the urethra. FLUTI previously referred as feline urologic syndrome (FUS). The potential causes of this infection are bladder infection, bladder stones, inflammation of the bladder or urethral obstruction. Urethral obstructions almost always occur in male cats because the urethra in the male cat is much narrower than that of the female cat. In the male, small bladder stones often cause an obstruction as they pass out of the bladder and through the urethra. Plugs can also occur in the male cat causing an obstruction. It is also noticed that stress can play a major role in the development of UTI. Stressors may include changes in the number of family members (both human and animal); changes in the litter box location, litter type, or cleanliness; changes in diet; and changes in the routine (e.g., no longer goes outside, owner no longer plays with cat).

Symptoms of FLUTI are prolonged squatting or straining in or out of the litter box and not producing urine or only a small amount, frequent urination or straining, pain while urinating (meowing or howling), urinating outside of the litter box, blood in the urine, frequent licking of the genital area, lack of appetite etc. The cat with urethral obstruction on progression of disease the cat will begin to vomit and will become very depressed and lethargic. If not treated, urethral obstructions are usually fatal.

If your cat is exhibiting the symptoms of urinary tract disease you should schedule an appointment with your veterinarian. Depending on findings of your vet, this condition can be treated with catheterization, antibiotics, analgesic medication, surgical removal of bladder stones, therapeutic diets, and increase in water consumption. By keeping stress low, you may be able to decrease the risk of your cat having further episodes.

(The views and opinions expressed in this article are those of the author and do not necessarily reflect the policy or position of this newspaper.)

Slow pace in old age may indicate heart diseases

Are you facing difficulty in taking rapid steps? Beware, it may indicate the risk of chronic heart illness.

Older adults with walking problems are at a higher risk of developing heart diseases, a new study says.

The study, published in the journal of the American Geriatrics Society, stated that the link between heart disease risk factors and walking difficulties was greater in people belonging to the older age group.

Aging enhances the

problems of balance, muscle strength and flexibility, physical strength that could also lead to numerous limitations and disabilities.

Heart disease risk factors such as smoking, living with diabetes, obesity or being physically inactive were linked to having a slower walking speed, the researchers noted.

The results showed that the more risk factors people had for heart disease, the faster their decline in walking speed. (IANS)

WHY

some people sweat more

People with higher body fat percentage sweat more

You are in an air-conditioned room and everyone is looking fresh but your armpits are soggy and you don't like the way your body smells, so you avoid proximity. Sounds familiar? Sweating a lot can be a big bummer if you want to look neat, clean and dry. And if your sweat stinks more than most, the matter gets worse. All this happens besides the fact that you are slim and indulge in moderate activity. Here are some explanations why you may sweat more than others.

The traditional thought:

Traditionally, people have associated more sweating to having a higher body fat percentage and less sweating to a higher level of aerobic activity. However, a recent study at American College of Sports Medicine presented some results which contradicted the traditional ideas.

Body fat and aerobic activity associated with other factors:

Though the traditional generalized rule may apply in many cases, there are many other factors which are associated to one's body fat percentage and aerobic fitness which also play a keen role in determining how much you sweat.

More body fat means more weight:

If you have a higher body fat percentage, it sure means that your body weighs more. Now, your body will have higher insular properties which may result in more sweating. This is what the traditional insight is. However, more body fat also means more body mass and this could also be the leading factor for more sweat production, and not the insular property of fat.

Higher aerobic activity means less weight:

Aerobic fitness, also called VO2 max, can make a person leaner. Thus, less sweat production happens due to a smaller body frame.

Change in core temperature due to heat generation:

The change in one's core temperature was measured in terms of per unit body mass. This was in response to the heat generated by their body during pedalling with no 'insulation effect'. This heat generation accounted for 50 per cent variation in one's core temperature.

Change in core temperature due to body fat percentage:

The body fat percentage only affected 2.3 per cent of the variation in one's core temperature. The percentages of the participants varied from 6.8 to 32.5 per cent.

This translates to this: If two people weigh the same and pedal at the same rate, they will heat up at the same rate. This would be true regardless of the differences in their height and body size.

Traditional wisdom false?

One must note that traditional mindset is not false but only the reasoning behind it is not true. People with higher body fat percentage sweat more not because of thermal properties of sweat but because higher weight needs hauling.

Similarly, aerobic fitness in isolation does not make more than a 4 per cent difference in variation of sweat rate. However, it is more about how much heat your body is generating. (TOI)

