

Health Matters

Certain areas of body age faster: Study

V.V.S. Manian

Researchers have come up with scientific evidence that age is just a number. A body's true age differs from person to person and does not depend on the year it was born.



team led by researcher Michael Snyder of Stanford University School of Medicine claims that there are four specific "age identifiers" - metabolic, immune, hepatic, and nephrotic - that determine whether certain areas of the body age faster in different people.

"Our study provides a comprehensive look at how we age by studying a wide

range of molecules and taking multiple samples over years from each participant," Snyder said in a report published in January 2020.

It's not the year you were born that determines your age; it's four physical "age identifiers".

People with an "aging" metabolism are more likely to develop heart disease, obesity, and type 2 diabetes due to the rapid aging of their metabolic rate - the chemical reactions in the body's cells that change food into energy.

"Age ID" vaccines concern a person whose immune system ages faster than the rest of the body. Increased immune system maturity often triggers inflammation throughout the

body and increases the risk of autoimmune diseases like rheumatoid arthritis, lupus, type 1 diabetes, and multiple sclerosis.

These livers are people who suffer from a liver that ages faster than their age—an essential organ necessary to detoxify the blood from all those toxic substances.

like alcohol and drugs. Rapid aging ultimately reduces the liver's ability to function properly as a person ages, leaving it susceptible to cirrhosis and non-alcoholic fatty liver disease.

Nephrotic concerns the kidney, the filter of waste from the blood that leads to the production of urine, balances body fluids, and helps balance blood pressure. People with rapidly aging kidneys may expect to experience high blood pressure and kidney failure later in life.

(Source: Medical News)

Spinal implant helps Parkinson's patient walk

V.V.S. Manian

People with late-stage Parkinson's disease (PD) often suffer from debilitating locomotor deficits that are resistant to currently available therapies. To alleviate these deficits, we developed a neuroprosthesis operating in a closed loop that targets the dorsal root entry zones innervating lumbosacral segments to reproduce the natural spatiotemporal activation of the lumbosacral spinal cord during walking.



falls that were medically refractory to currently available therapies. We found that the neuroprosthesis interacted synergistically with deep brain stimulation of the subthalamic nucleus and dopaminergic replacement therapies to alleviate asymmetry, promote longer steps, improve balance, and reduce freezing of gait.

Soap enhances potency of anti-mosquito pesticides

Could the solution to the decades-long battle against malaria be as simple as soap? In a new study, scientists at The University of Texas at El Paso have made a compelling case for it.

The team has found that adding small quantities of liquid soap to some classes of pesticides can boost their potency by more than ten-fold.

The discovery is promising news as malaria-carrying mosquitoes display an increasing resistance to current insecticides, said Colince Kamdem, PhD, lead author of the study and assistant professor in UTEP's Department of Biological Sciences.

"Over the past two decades, mosquitoes have become strongly resistant to most insecticides," Kamdem said.

"It's a race now to develop alternative compounds with new modes of action."

Both laboratory tests and field trials have shown that neonicotinoids, a special class of insecticide, are a promising alternative to target populations showing resistance to existing insecticides, said UTEP Research Assistant Professor Caroline Fouet, PhD, second author of the study.

Neonicotinoids, however, do not kill some mosquito species unless their potency is boosted.

In this case, Fouet said, soap is the boosting substance.

Malaria is a devastating mosquito-borne disease that is prevalent in sub-Saharan Africa, Asia and Latin America, causing fever, fatigue, headaches and chills; the disease can be fatal.

In 2020, there were an estimated 241 million cases of malaria worldwide, according to the Centres for Disease Control, resulting in 627,000 deaths.

Current protocols from the World Health Organisation (WHO) for testing mosquitoes' susceptibility to some insecticides recommend adding a seed oil-based product to insecticide concoctions.

Kamdem noticed when the compound was added, mosquito mortality increased from when the insecticide was used on its own.

"That compound belongs to the same class of substances as kitchen soap," Kamdem said.

He and his team selected three low-cost, linseed-oil based soaps that are prevalent in sub-Saharan Africa -- Maître Savon de Marseille, Carlin Savon Noir and La Perdrix Savon - and added them to four different neonicotinoids, acetamiprid, clothianidin, imidacloprid and thiamethoxam.

The hunch paid off. In all cases, the insecticides drastically enhanced potency, the team wrote in the study.

"All three brands of soap increase mortality from 30 percent to 100 per cent compared to when the insecticides were used on their own," said Ashu Fred, first author of the study and PhD student at Cameroon's University of Yaoundé 1.



CHANGE OF NAME I, P DINESHKUMAR (Old Name), S/o K POONGAVANAM, residing at 79, 8th cross road, Durai Nagar, East Gandhi Nagar, Vellore - 632006, Tamil Nadu, India, changed my name from P DINESHKUMAR to DEEKAY vide affidavit dated 21.11.2023, sworn before Notary S Praveen Kumar at Chennai. Henceforth, I shall be known as DEEKAY for all purposes.

CHANGE OF NAME I, SHWETA SAKAMURI D/o. Rajagopal Sakamuri Date of Birth: 19/08/1978 Place of Birth: Hyderabad Residing at BBC city Park Flat no 39, 3rd floor Chinna Porur Hospital Road Valasaravakkam Chennai- 600087 Tamilnadu Shall henceforth be known as SHWETA GANDHAMANENI SHWETA SAKAMURI

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