

Current Pharma News

New therapy targets gut bacteria to prevent and reverse food allergies

Published Date: June 24, 2019

A new study identifies the species of bacteria in the human infant gut that protect against food allergies, finding changes associated with the development of food allergies and an altered immune response.

Source: *Brigham and Women's Hospital, Boston, USA*

Multiple sclerosis: Endogenous retrovirus HERV-W key to nerve tissue damage

Published Date: June 27, 2019

Multiple sclerosis (MS) is an autoimmune disease of the central nervous system (CNS) affecting brain and spinal cord. Medical researchers have now discovered a new way in which nerve tissue is damaged by an endogenous retrovirus.

Source: *Heinrich-Heine University Duesseldorf, Germany*

Disrupted sleep in one's 50s, 60s raises risk of Alzheimer's disease

Published Date: June 27, 2019

People who report a declining quality of sleep as they age from their 50s to their 60s have more protein tangles in their brain, putting them at higher risk of developing Alzheimer's disease later in life, according to a new study by psychologists at the University of California, Berkeley. The new finding highlights the importance of sleep at every age to maintain a healthy brain into old age.

Source: *University of California – Berkeley, USA*

Urinary tract and other infections may trigger different kinds of stroke

Published Date: June 27, 2019

Several infections have been identified as possible stroke triggers, with urinary tract infections showing the strongest link with ischemic stroke. Healthcare providers need to be aware that stroke can be triggered by infections, researchers noted.

Source: *American Heart Association, Dallas, USA*

Botox cousin can reduce malaria in an environmentally friendly way

Published Date: June 28, 2019

Researchers have found a new toxin that selectively targets mosquitoes. This can lead to innovative and environmentally friendly approaches to reduce malaria.

Source: *Stockholm University, Sweden*

Medicines made of solid gold to help the immune system

Published Date: June 28, 2019

By testing a variety of gold nanoparticles, researchers are providing first evidence of their impact upon human B lymphocytes -- the immune cells responsible for antibody production. The use of these nanoparticles is expected to improve the efficacy of pharmaceutical products while limiting potential adverse effects. These results will lead to the development of more targeted and better tolerated therapies, particularly in the field of oncology.

Source: *Université de Genève, Switzerland*

Functional hair follicles grown from stem cells

Published Date: June 27, 2019

Scientists have created natural-looking hair that grows through the skin using human induced pluripotent stem cells (iPSCs), a major scientific achievement that could revolutionize the hair growth industry.

Source: *Sanford Burnham Prebys Medical Discovery Institute, California, USA*

Milestone reached in use of nanoparticles to kill cancer with heat

Published Date: June 26, 2019

Researchers have developed an improved technique for using magnetic nanoclusters to kill hard-to-reach tumors.

Source: *Oregon State University, Corvallis, USA*

A better way to encapsulate islet cells for diabetes treatment

Published Date: June 26, 2019

Researchers have come up with a novel way to prevent fibrosis, which can lead to rejection of implantable medical devices, by incorporating a crystallized immunosuppressant drug into the devices. After implantation, the drug is slowly and locally secreted to dampen the immune response in the area immediately surrounding the device for a period of years.

Source: *Massachusetts Institute of Technology, Cambridge, USA*

Long-term statin use associated with lower glaucoma risk

Published Date: June 26, 2019

A new study brings the connection between statin use and risk of glaucoma into sharper focus. Investigators have found that using statins for five or more years is associated with lower risk of primary open-angle glaucoma.

Source: *Brigham and Women's Hospital, Boston, USA*

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Migraine increases the risk of complications during pregnancy and childbirth

Published Date: June 26, 2019

Pregnant women with migraine have an increased risk of miscarriage, caesarean sections and giving birth to a child with low birth weight. This is shown by a comprehensive register-based study. The study also suggests that prescription migraine drugs may alleviate the complications.

Source: *Aarhus University, Denmark*

References: sciencedaily.com

New Drug Approvals

Drug Name	Active Ingredient	Approval Date	Manufacturer	FDA-approved use(s)
Xpovio	Selinexor	July 03, 2019	Karyopharm Therapeutics Inc., USA	Multiple Myeloma
Thiola EC DR-Tablets	Tiopronin	June 28, 2019	Retrophin, Inc., USA	Cystinuria
Zirabev Injection	Bevacizumab-bvzr	June 27, 2019	Pfizer Inc., USA	Colorectal Cancer, Non- Small Cell Lung Cancer, Glioblastoma Multiforme, Renal Cell Carcinoma, Cervical Cancer
Vyleesi Injection	Bremelanotide	June 21, 2019	AMAG Pharmaceuticals, Inc., USA	Hypoactive Sexual Desire Disorde
Kanjinti Injection	Trastuzumab-anns	June 13, 2019	Amgen Inc., USA	Breast Cancer, Gastric Cancer
Polivy Injection	Polatuzumab vedotin-piiq	June 10, 2019	Genentech, Inc., USA	Diffuse Large B-Cell Lymphoma

New Indications & Dosage Forms for Existing Drugs

Generic	Dosage form	Approval Date	Manufacturer	Indication
Febuxostat	Tablets 40 mg & 80 mg	July 1, 2019	Mylan Pharmaceuticals Inc.; Alembic Pharmaceuticals Inc.; Sun Pharmaceutical Industries, Inc.	Uloric
Ketorolac Tromethamine + Phenylephrine Hydrochloride	Irrigation Solution 0.3% (base)/1% (base)	July 1, 2019	Lupin Pharmaceuticals, Inc.	Omidria
Carboprost Tromethamine	Injection 0.25mg (base)/ml	July 2, 2019	Dr. Reddy's Laboratories Limited	Hemabate
Diclofenac Sodium	Injection 37.5 mg/ml Single-Dose Vials	June 18, 2019	Mylan Laboratories Limited	Dyloject

References: fda.gov

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CAM News

Acupuncture and herbs outperform hair loss drug

Published Date: July 13, 2019

Acupuncture and herbs outperform a popular hair loss drug for patients with seborrheic alopecia. Heilongjiang University of Traditional Chinese Medicine Second Affiliated Hospital researchers compared results in a clinical trial. The acupuncture plus herbs group received standard acupuncture and a version of a traditional Chinese herbal medicine formula called Yin Chen Wu Ling powder. The drug group received oral administration of finasteride tablets (1 mg per day), for a total of 12 weeks. The research of Kong *et al.* indicates that acupuncture and herbal medicine treatments produce significant positive patient outcomes for patients with seborrheic alopecia due to damp-heat steaming the upper body. Acupuncture and herbs produced an 87.5% total effective rate. Finasteride produced an 82.5% total effective rate.

Source: healthcmi.com

Drinking garlic tea help keep your BP levels in control

Published Date: February 27, 2019

Hypertension or high blood pressure is defined as a condition where the force of blood against the artery walls is higher than normal. If left uncontrolled, hypertension could lead to heart attack or death.

The allicin present in garlic is said to have immense blood-pressure lowering effect. According to the book, 'Healing Foods' by DK Publishing House, "The sulphur in garlic stimulates nitric oxide production in vessels. This relaxes and improves their elasticity, helping lower blood pressure and reducing the risk of stroke and atherosclerosis (hardening of arteries)."

A study published in the *European Journal of Clinical Nutrition*, those people who took either 480 mg or 960 mg of garlic showed a significant reduction in systolic blood pressure.

Source: ndtv.com

Aloe Vera gel help in shedding kilos

Published Date: February 28, 2019

Aloe vera gel comprises about 96% water, organic and inorganic compounds, vitamin A, B, and C, and proteins. Also known as ghritkumari in Hindi, aloe vera helps in detoxifying our digestive tract, especially colon. Moreover, aloe vera is known as a natural laxative; meaning consuming aloe vera regularly gives us a healthy digestive system, which leads to proper functioning of our large intestine, a clean colon, and a happy and healthy tummy. So, there's another reason to start your day with a glass of aloe vera juice to lose weight. Additionally, drinking aloe vera juice regularly could improve our metabolism. Aloe vera helps in boosting our metabolism and helps in regulating easy bowel movements, which is directly related to weight loss.

Source: ndtv.com

Incredible benefits of using black tea for skin

Published Date: February 28, 2019

Discovered in China some 5000 years ago, tea is now the most popular drink in the world. There are many people who kick-start their mornings with a cup of black coffee - perhaps due to its endless benefits. It keeps you energized, focused and active throughout the day. It is brimming with antioxidants and various phytonutrients that are known to flush out the toxins from our body. If your inner health is good, it shows on the outside and our skin is the first thing that shows that. So, without much ado, few benefits of using or drinking black tea for skin are prevents early aging, reduce pigmentation, remove blemishes etc.

Other than that, tea is also good for relieving an upset stomach, and headaches; this is something we have all experienced. Black tea has also been reported to lower stress by reducing the stress hormone called cortisol.

Source: ndtv.com

Elderberry compounds could help minimize flu symptoms

Published Date: April 23, 2019

The researchers used commercially farmed elderberries which were turned into a juice serum and were applied to cells before, during and after they had been infected with the influenza virus.

The phytochemicals from the elderberry juice were shown to be effective at stopping the virus infecting the cells; however to the surprise of the researchers they were even more effective at inhibiting viral propagation at later stages of the influenza cycle when the cells had already been infected with the virus. In addition to that, researchers identified that the elderberry solution also stimulated the cells to release certain cytokines, which are chemical messengers that the immune system uses for communication between different cell types to coordinate a more efficient response against the invading pathogen.

Source: sciencedaily.com

Active ingredient of aconite root against peripheral neuropathic pain is identified as neoline

Published Date: April 10, 2019

The root of *Aconitum carmichaeli* (Ranunculaceae), is a crude drug used in traditional Chinese or Japanese kampo medicine to treat pain associated with coldness.

Aconite root could relief neuropathic pain in murine peripheral neuropathy model induced by intraperitoneal injection of oxaliplatin, paclitaxel, or the partial ligation of the sciatic nerve (Seltzer model), and identified that its active ingredient is neoline. In the plasma samples of rats treated with processed aconite root, higher concentrations of benzoylmesaconine and neoline were apparent among *Aconitum* alkaloids. Subcutaneous injection of benzoylmesaconine did not attenuate the hyperalgesia in mice models. Neoline is a stable compound by heat-processing of aconite root. The present results indicate that processed aconite root and its active ingredient, neoline, are promising agents for the alleviation of neuropathic pain.

Source: sciencedaily.com

Saffron a promising herbal medicine for treating ADHD

Published Date: February 23, 2019

The benefits and medicinal properties of saffron make it a valuable culinary ingredient, not just in India but worldwide. Various health experts suggest that saffron can be used as an aphrodisiac, diaphoretic (to cause sweating), and carminative (to prevent gas) and to bring on menstruation. The study, published in the *Journal of Child and Adolescent Psychopharmacology*, showed that saffron, which has anti-depressant and memory-enhancing properties, can be as effective at controlling symptoms as methylphenidate, the commonly prescribed drug Ritalin for treating attention deficit hyperactivity disorder (ADHD). ADHD is one of the most common neuropsychiatric disorders of childhood and adolescence.

Source: ndtv.com

Blueberry drinks for immunity boost

Published Date: July 11, 2019

Blueberry, an important fruit belonging to the family of berry fruits, is a hidden gem. Its origin can be traced back to North America. Though not too popular in India, it is gradually and slowly catching up with the ranks of other popular fruits. Due to its slightly sour and tart taste, it is mostly used in desserts to neutralise the overload of sweetness. Blueberry is known to be one of those superfoods that are chock-full of nutrients. Blueberry is particularly recognised for its immunity-boosting effects. Its anti-inflammatory and antioxidant properties provide a blanket cover to keep away common infections and various diseases. A study conducted by Oregon State University discovered that blueberries contain a compound called pterostilbene that contributes to improving the immune system by activating the human cathelicidin antimicrobial peptide (CAMP) gene.

Source: food.ndtv.com

Eating blueberries every day improves heart health

Published Date: May 30, 2019

Studies have indicated that people who regularly eat blueberries have a reduced risk of developing

conditions including type 2 diabetes and cardiovascular disease. This may be because blueberries are high in naturally occurring compounds called anthocyanins, which are the flavonoids responsible for the red and blue colour in fruits. Dr Peter Curtis, said: "We found that eating one cup of blueberries per day resulted in sustained improvements in vascular function and arterial stiffness -- making enough of a difference to reduce the risk of cardiovascular disease by between 12% to 15%.

Source: sciencedaily.com

Whole grain can contribute to health by changing intestinal serotonin production

Published Date: May 13, 2019

Adults consuming whole grain rye have lower plasma serotonin levels than people eating low-fibre wheat bread, according to a recent study by the University of Eastern Finland and the International Agency for Research on Cancer (IARC). In the study, the consumption of cereal fibre from rye or wheat was also found to reduce serotonin levels in the colon of mice. In light of the results, the health benefits of whole grain cereals may be linked, at least in part, to the alteration of serotonin production in the intestines, where the majority of the body's serotonin is produced.

Source: sciencedaily.com

Soy protein lowers cholesterol

Published Date: May 6, 2019

Researchers found that soy protein reduced LDL cholesterol by 3 to 4 percent in adults -- a small but significant amount, noted Dr. David Jenkins, the lead author of the study, who is also the director of the Clinical Nutrition and Risk Factor Modification Centre, and a scientist in the Li Ka Shing Knowledge Institute of St. Michael's Hospital.

"When one adds the displacement of high saturated fat and cholesterol-rich meats to a diet that includes soy, the reduction of cholesterol could be greater," Dr. Jenkins said. "The existing data and our analysis of it suggest soy protein contributes to heart health."

Source: sciencedaily.com

Walnuts help lower blood pressure for those at risk of heart disease

Published Date: May 1, 2019

Walnuts contain alpha-linolenic acid -- ALA -- a plant-based omega-3 that may positively affect blood pressure, Tindall said. We wanted to see if ALA was the major contributor to these heart-healthy benefits, or if it was other bioactive component of walnuts, like polyphenols. Walnuts lowered central pressure, their risk of CVD may have also decreased. When combined with a diet low in saturated fats, eating walnuts may help lower blood pressure in people at risk for cardiovascular disease.

Source: sciencedaily.com

Yerba santa: the magical Californian shrub that can help treat Alzheimer's

Published Date: Feb 22, 2019

A shrub, used by native Californian tribes to treat respiratory ailments, fever and headaches, contains a potent chemical which could help treat Alzheimer's disease. sterubin as a potent neuroprotective component of a native California plant called Yerba santa (*Eriodictyon californicum*). Devotees brew its leaves to treat respiratory ailments, fever and headaches; and mash it into a poultice for wounds, sore muscles and rheumatism. Sterubin the most active component of Yerba santa's that have anti-inflammatory and neuroprotective properties. The researchers tested sterubin and other plant extracts for their impact on energy depletion in mouse nerve cells, as well as other age-associated neurotoxicity and survival pathways directly related to the reduced energy metabolism, accumulation of misfolded, aggregated proteins and inflammation seen in Alzheimer's.

Source: economictimes.indiatimes.com

Drinking hot tea linked with elevated risk of esophageal cancer

Published Date: March 20, 2019

Previous studies have revealed a link between hot tea drinking and risk of esophageal cancer, but until now, no study has examined this association using prospectively and objectively measured tea drinking temperature. A new study achieved this by following

50,045 individuals aged 40 to 75 years for a median of 10 years.

Source: Wiley, New Jersey, USA

One-third of cancer patients use complementary and alternative medicine

Published Date: April 11, 2019

A stunning one-third of people with a cancer diagnosis use complementary and alternative medicines such as meditation, yoga, acupuncture, herbal medicine, and supplements.

Source: UT Southwestern Medical Center, Texas, USA

A bacterium likely to reduce the cardiovascular risks of 1 in 2 people

Published Date: July 1, 2019

Scientists conducted the first pilot study in humans to observe the impact of the bacterium *Akkermansia*. The bacterium limits the increase of several risk factors for cardiovascular diseases, moderates the progression of pre-diabetes and reduces cholesterol levels in humans. A major discovery since one in two individuals is overweight and cardiovascular risk

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factors. Researchers plan larger-scale tests and the commercialization of the bacteria.

Source: Université catholique de Louvain, Belgium

Herbal supplement used to treat addiction and pain

Published Date: July 9, 2019

The herb kratom is increasingly being used to manage pain and treat opioid addiction, but new research suggests that it is not safe to use as an herbal supplement.

Source: Binghamton University, UK

Synthetic version of CBD treats seizures in rats

Published Date: May 28, 2019

A synthetic, non-intoxicating analogue of cannabidiol (CBD) is effective in treating seizures in rats, according to research by chemists. The synthetic CBD alternative is easier to purify than a plant extract, eliminates the need to use agricultural land for hemp cultivation, and could avoid legal complications with cannabis-related products.

Source: University of California – Davis, USA