INDIAN COUNCIL OF MEDICAL RESEARCH

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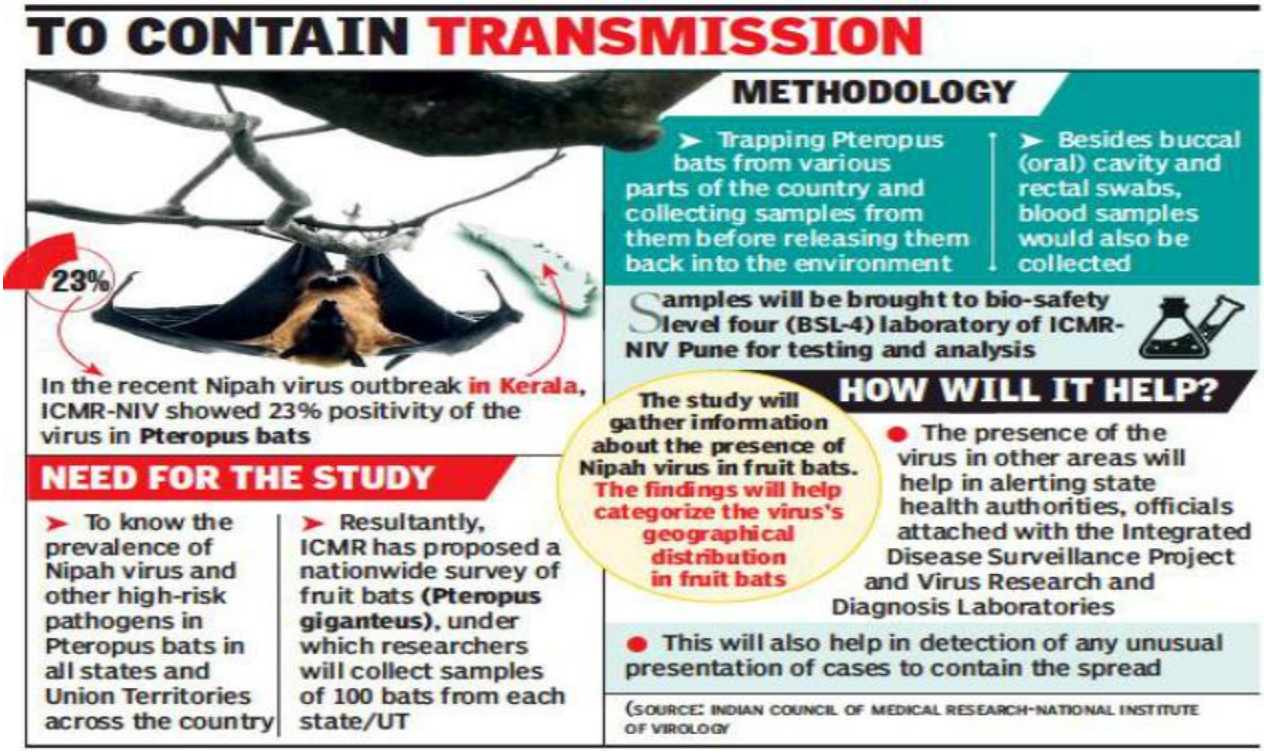
Pan-India study of fruit bats to gauge Nipah virus threat

January 13, 2019/The Times of India

The city-based **Indian Council of Medical Research (ICMR)**-National Institute of Virology (ICMR-NIV) will undertake a nationwide surveillance of fruit bats to gauge Nipah virus threat. The move follows the presence of Nipah virus in fruit bats (Pteropus giganteus) during the recent outbreak in Kerala, following which 17 people succumbed to the pathogen in May-June 2018.

"In the recent outbreak in Kerala, ICMR-NIV had shown 23% positivity of Nipah virus in the Pteropus bats while screening throat and cloacal (rectal) swabs of the



mammals captured near the index case's house," scientist Devendra Mourya, director, ICMR-NIV told TOI. The study also becomes vital as there is no information on the presence of the virus in fruit bats in the country, except West Bengal, Assam and Kerala, which are considered the hotspots of the deadly disease. Experts said the crucial intelligence on the presence of the virus in other areas would help in giving alerts, increase preparedness and contain the human-to-human transmission of the virus to save lives.

"About 20 states, including Maharashtra, will be covered in the first phase. The site selection activities have begun in 16 states from this month. The places and areas under surveillance will not be disclosed to avoid panic situation," Mourya said.

Indian women account for almost 37 percent of suicides in world

January 13, 2019/Free Press

Mumbai: India accounts for a whopping 36.6 per cent of suicides among women in the world. It is the leading cause of death in the 15-39 years age group in India and suicide rate among the elderly has increased over the past quarter century. A study was conducted in collaboration with the **Indian Council of Medical Research (ICMR)** and other institutes to examine the extent and reasons for suicide in India, which revealed nearly 37 per cent of all women committing suicide across world are Indians. From 1990-2016, India's contribution to the global suicide rate rose by 11 per cent — meaning from 25.3 per cent cases of suicide by women went up to 36.6 per cent. In a written reply to a question raised in Parliament regarding the rising cases of female suicide in the country, Anupriya Patel, minister of state in the ministry of health and family welfare stated, "According to the report 'India: Health of the Nation's States' prepared by the Indian Council of Medical Research (ICMR), the Public Health Foundation of India (PHFI) and the Institute of Health Metrics and Evaluation (IHME), the percentage of deaths due to suicide and interpersonal violence is 2.8 per cent of the total deaths in the country. "Between 1990 and 2016, India's contribution to global suicide rate increased from 25.3 per cent to 36.6 per cent among women. The causes of suicide have their origin in the social, economic, cultural, psychological and health status of an individual. "The individual risk factors for suicide include, inter-alia previous suicide attempt, mental disorders, harmful use of alcohol, job or financial loss, hopelessness, chronic pain, family history of suicide and genetic and biological factors."

Tackling diabetes with lifestyle changes

January 14, 2019/The Pioneer

Much of the diabetes burden can be prevented by making lifestyle changes.
The complications of diabetes are of significance also in terms of socioeconomic costs. Diabetes is a chronic disease which occurs when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. This leads to an increased concentration of glucose in the blood, known as hyperglycaemia.
Type I Diabetes Mellitus earlier known as Insulin Dependent Diabetes Mellitus, childhood onset or juvenile diabetes Mellitus, is characterised by a lack of insulin production. Type II Diabetes Mellitus earlier known as Non-Insulin Dependent Diabetes Mellitus or adult onset diabetes is caused by ineffective use of insulin by the body. Gestational Diabetes Mellitus is hyperglycaemia that is recognised during pregnancy, it can lead to serious health risk for both mother and child.
Diabetes is a growing challenge in India with estimated 8.7 per cent diabetic population in the age group of 20 to 70 years. The rising prevalence of diabetes and other non communicable disease is driven by a combination of factors like sedentary lifestyle, rapid urbanisation, increasing life expectancy, unhealthy diet, consumption of tobacco and alcohol and sudden increase in per capita income and increased consumption of processed foods. According to a research by **Indian Council of Medical Research (ICMR)**, Asians have a 2-4 times higher risk of acquiring type II diabetes than Europeans. Studies have shown that diabetes in Asians develops a decade earlier than in Europeans, at lower weight and those with pre-diabetes progress to diabetes at a faster rate.

Being an orthopaedic surgeon, now I will focus on the related orthopaedic complications. The pathology behind the orthopaedic complications can be mainly attributed to neuropathy and angiopathy. Nerve damage (neuropathy) is a complication of diabetes that leads to a loss of sensation in the feet. Decreased sensations can lead to a wound as small as the size of a pinhead which can progress to a serious infection in a matter of days as they often go unnoticed. Diabetes also damages the blood vessels (angiopathy), decreasing the blood flow to the feet. Orthopaedic complication of diabetes include: foot ulcer, gangrene of toes, plantar fasciitis, tendonitis, avascular necrosis of femoral head, Charcot arthropathy, diabetic foot in the lower limbs and frozen shoulder, carpal tunnel syndrome and Dupuyptren's contracture in the upper limbs.

HEALTH: The Might of the Right Meal
January 15, 2019/The Sentinel

From ages, people have known that the way to long term health is through nutrition. Nutrition is the science of food and its relation to health. Good nutrition means maintaining a nutritional status that enables us to grow well and enjoy good health. There are association of nutrition with infection, immunity, fertility, maternal and child health and family health. Specific nutritional deficiency diseases are identified and technologies developed to control them by nutritional supplementation, as for example, protein energy malnutrition, endemic goiter, nutritional anemia, nutritional blindness and diarrheal diseases. There is role of dietary factor for the pathogenesis of non-communicable diseases such as diabetes, coronary heart disease and cancer. Nutrition is the cornerstone of socioeconomic development, and the nutritional problems are not just medical problems but are “multifactorial” with root in many other sectors of development such as education, demography, agriculture and rural development.
Proteins (2 to 3 servings per day) sources like Soya, Meat, Fish, Beans, Eggs and Lentils are important because proteins are the building blocks of the body. Each gram protein provides four kilo calori energy. The **Indian Council of Medical Research** has recommended 1.0 gm protein per kg body weight for an adult Indian. Proteins are vital for growth and repair of body tissue and are also used in the manufacture of hormones, enzymes, antibodies and other transport materials.
Fats (minimal per day) are needed for certain metabolic functions in the body. Each gram fat provides nine kilo calori energy. However, excessive fats can lead to unwanted calories, increasing the risk of obesity and heart disease; hence they have to be consumed in moderation.

Medical Innovation Fund of ICMR
January 15, 2019/Telangana Today

Hyderabad: **Indian Council of Medical Research (ICMR)** has launched Medical Innovation Fund, a new scheme for researchers associated with its institutions to accelerate medical innovation. The scheme aims to provide support to test and validate novel and highly creative ideas even if they have a high probability of failure. The experiments, based on initial experience, if proved rewarding then the scope of the scheme would be enlarged by inviting joint proposals between ICMR laboratories on one hand and other scientific institutions or universities on the other. Proposals are invited from ICMR laboratories either individually or jointly with other ICMR institutes under the Medical Innovation Fund for support from ICMR. These proposals are meant for pursuing hitherto unreported, novel ideas

having far reaching scientific and medical implications. The two-year scheme is for individuals or a group of collaborating scientists and is non-transferable .The scheme is intended to be carried out by ICMR institutes where basic infrastructure already exists. This scheme is not meant for institutional strengthening but for promoting institutional ideas. The scientist who has proposed the idea for pursuing shall be the principal investigator of the research proposal. A collaborator could be involved from the same or any other ICMR institute. The consent of the head of the institutes must be furnished along with the proposal.

India's environment ministry once again downplays the effects of air pollution on human health

January 16, 2019/Scroll.in

In a response to a question raised in Parliament, the Ministry of Environment, Forests and Climate Change stated on January 4 that "there is no conclusive data available in the country to establish direct correlation of death/disease exclusively to air pollution". It notes, however that air pollution may be a "triggering factor" for respiratory ailments. In an interview from 2017, the minister also stated that "no death certificate has a cause of death as pollution". These responses follow a pattern of reflexive defensiveness from the ministry towards dozens of studies published in the last few years linking rising air pollution levels to mortality and morbidity across the country. It also reveals a misunderstanding of the science backing these claims. Household and ambient air pollution have since been linked with heart attacks, asthma, lung cancer, chronic obstructive pulmonary disease, respiratory infections in children, prematurity and low birth weight, cataracts, and strokes. The reams of historical evidence in India on health effects have been documented exhaustively in the Ministry of Health and Family Welfare's report on Air pollution released in 2016, and more recent burden of disease estimates were released by the **Indian Council of Medical Research** and the Public Health Foundation of India in December 2018.

Gluten Intolerance: The rising problem of wheat-related disorders

January 16, 2019/the Indian Express

Wheat has been listed among the top eight allergens in the world and adverse reactions to this cereal grain can be in the form of an allergy, skin rashes, bloating, digestive disorders or other intolerances. To create awareness about early diagnosis and management of the disease of which Indians generally "have little or no knowledge", the International Symposium on Wheat related Disorders (ISWD) 2019 was organised in the Capital by the Celiac Society of India (CSI) from January 10-13. Gluten allergy, also known as celiac disease, is an autoimmune disease that occurs because of ingestion of a protein, called gluten, which is present in the cereals – wheat and barley. In these patients, the gluten protein is not digested completely and that leads to damage of the small intestine, where food is absorbed. With the damage of the small intestine, the food is not absorbed and thus, these patients fail to grow in height and weight, develop chronic diarrhea, anemia (low hemoglobin), and weakness of bones.

According to Prof. (Dr) Anupam Sibal, Apollo Hospitals Group, "One should not go on a completely gluten-free diet just on the basis of a blood test." On a similar note, Ms. Khosla adds, "It is good to be on a diet for a few months and then reintroduce it. Once you are back in the diet, then check if the same symptoms are

there. If it is still there, then you are wheat sensitive. When the gut breaks down, supplements are given accordingly."
Dr. Sibal also pointed out that celiac disease may depend on a location. "Celiac disease is a common problem in North and East India but not so much in South India. According to a survey conducted by the **Indian Council of Medical Research**, in Haryana the prevalence of the disease is 8 people per thousand, in Assam, it is 4 per thousand and in Tamil Nadu, it is only 0.1 per thousand. So, we have a lot of variation."

IIT Mandi test can detect early signs of kidney damage
January 17, 2019/Deccan Herald

Researchers at IIT Mandi have developed a novel system that can detect early signs of kidney damage by measuring even low levels of a protein marker in urine and blood samples. The test, which detects the presence of a protein albumin in urine and blood, can serve as an early indicator of various health disorders such as renal dysfunction as well as diseases that result from diabetes. At present, dipstick tests are available in the market to detect albumin in urine. However, analysing microalbuminuria -- a condition in which kidney leaks small amounts of albumin into the urine -- and other nephritic disorders in their early stages is difficult using these tests. "The urine dipsticks available in the market can correctly estimate albumin concentration in urine up to 30 microgrammes per decilitre (mg/dL), whereas with our technique one can measure levels as low as 3.3 mg/dL," Shubhajit Roy Chowdhury, an assistant professor at Indian Institute of Technology (IIT) Mandi, told PTI. It will be the first device which has the potential to detect and quantify urinary albumin through the enrichment of fluorescent signal, the researchers said. The project, jointly funded by Ministry of Human Resource Development and **Indian Council of Medical Research**, would help detect many health disorders in premature phase. "The cost of doing the test will come down to below 30 rupees. At present, while the dipsticks are not very costly, the device to analyse the results may cost up to a few lakhs. "We are instead using a portable, hand-held gadget that will be worth 3,000 rupees or so," Roy Chowdhury said.

Why More Indian Men Don't Get Vasectomies
January 17, 2019/The Swaddle

"Why are Indian men not open to vasectomy?"
To this question on Quora, a question-and-answer website, the answers suggest women think it has more to do with social stigma, while men think it will raise doubts about their 'manhood':

- "Most Indian decisions are based on 'Log Kya Kahenge' or what will people say?"
- "Men think if they're not capable of producing children, why are they even alive?"
- "Marriages don't work out and people don't want to take a permanent decision."
- "It makes them feel less of a man."

These are some of the common reasons that contribute to the fact that vasectomy as a method of birth control is yet to catch on in India.
Vasectomy, the surgical procedure designed to make a man sterile by cutting or blocking both the right and the left vas deferens — the tubes through which sperm

pass — is a quick and, in most cases, a painless procedure, especially when compared to the female equivalent. Tubectomies, in which women's Fallopian tubes are clamped, blocked or sealed to prevent eggs from reaching the uterus for fertilization and implantation, are invasive, lengthier, require general anesthesia and hospitalization, and are more likely to cause a considerable amount of pain. Yet, a study by the Indian Council of Medical Research, the apex body in India for the formulation and promotion of biomedical research, found that the prevalence and acceptance of vasectomy in India had fallen from 74.2% in 1970 to just 4.2% in 1992.

Premier ICMR facility to come up in city
January 18, 2019/Telangana Today

The **Indian Council of Medical Research (ICMR)** is all set to make Hyderabad its base to develop better alternatives to animal models, which at the moment hold sway in all types of research. The apex body for biomedical research in the country decided to establish its first 'Centre of Excellence in Human-Pathway-Based Biomedicine and Risk Assessment' facility here in the city. The ICMR research institute proposed in Hyderabad will focus on developing cutting-edge non-animal models that will be useful in research. According to those familiar with the sector, industries and research institutions in Europe and United States have already started moving away from animal testing to embrace non-animal methods, including highly advanced computer modelling techniques. As part of working towards having animal models for research, the ICMR has also drafted an Indian road map on 'Alternatives to Animal Research'. Officials said that the white paper on alternatives on animal research will be in focus at the newly proposed ICMR research facility in Hyderabad. "More and more scientists are questioning the relevance and utility of animal-based research and testing, while foreign funding agencies are investing heavily in cutting-edge non-animal technologies.

Hyderabad to be home for premium ICMR facility
January 18, 2019/The New Indian Express

Yet another major scientific institution is all set to join Hyderabad's list of prestigious central institutions. The city will now be home to a new centre that will work on finding alternatives to end animal testing, a common practice in various industries to test products before they are allowed for human usage.
According to an official letter sent by Indian Council of Medical Research (ICMR) to Union Minister for Women and Child Development, Maneka Gandhi, ICMR will be establishing a 'Centre for Excellence in human pathway-based biomedicine and risk assessment' in Hyderabad. The centre, that will work towards finding alternatives to animal testing, will be located on the premises of the National Animal Resource Facility for Biomedical Research (NARF-BR), National Institute of Nutrition, Tarnaka. The official letter by ICMR was obtained by animal rights NGO Humane Society International-India. HSI/India Deputy Director Alokparna Sengupta said, "More and more scientists are questioning the relevance and utility of animal-based research and testing, while foreign funding agencies are investing

heavily in cutting-edge non-animal technologies. This new ICMR centre, if properly resourced, has the potential to make India a key global player in 21st-century medical research." HSI-India officials informed that they along with another animal rights NGO, People for Animals will be actively involved with the new centre in Hyderabad.

With regards,

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