

Expert worries about supervision of Tehran's recent buildings



SARAH CREGO

Social Desk

EXCLUSIVE

Tehran, the bustling capital city of Iran, is no stranger to earthquakes. The city lies on several major fault lines, making it highly susceptible to seismic activity. Despite recent efforts to construct earthquake-resistant buildings, experts warn that Tehran is still vulnerable to the devastating effects of an earthquake. The International Institute of Earthquake Engineering and Seismology (IIEES) in Tehran has been conducting extensive research in earthquake engineering and seismology to improve the safety of buildings and infrastructure. However, their findings have revealed potential vulnerabilities that could lead to poor performance in the event of an earthquake. According to the IIEES, many of Tehran's buildings were constructed before the implementation of modern building codes and standards for

earthquake-resistant design. This means that they may not be able to withstand the force of a strong earthquake. In addition, many buildings have been constructed without proper oversight or inspection, leading to potential structural weaknesses. What specifically worries Fariborz Nateghi Elahi, professor of IIEES, is the quality of Tehran's recent buildings – those constructed within the last five years. "In the last five years, we have had constructions in Tehran whose vulnerability is indeed very high. It is true that they are designed as new, earthquake-resistant buildings, but in the event of an earthquake, we will see how bad these buildings will perform," he said in an interview with Fars News Agency. "My general impression is that worn-out structures lack resistance to earthquakes. We used to think that new structures perform better and are more resistant, but in the recent earthquakes, we saw that

most of the new buildings in Bushehr, Hormozgan, Bam, and Khoy were more damaged. Therefore, we are worried that due to the high cost of materials and reliance on computer calculations, structures that were once resistant may become weak in the next decade and pose many problems in the future," stated the seismologist. The IIEES has also identified Tehran's transportation infrastructure as a potential vulnerability. The city's subway system, for example, was built without considering seismic activity and may not be able to withstand a strong earthquake. This could have devastating consequences, as the subway system is a critical component of Tehran's transportation network. Despite these vulnerabilities, the Iranian government has taken steps to improve earthquake preparedness in Tehran. In recent years, new earthquake-resistant buildings have been constructed and building codes have

been updated. However, experts warn that more needs to be done to ensure the safety of Tehran's residents in the event of an earthquake. The IIEES continues to conduct research and provide technical support to government agencies and private organizations involved in earthquake risk management. Through their work, they hope to contribute to the development of seismic hazard assessment and earthquake prediction techniques, as well as the establishment of building codes and standards for earthquake-resistant design. Nateghi further warns about the dangers of neglecting supervision, saying, "[it] is crucial in the construction process, and it should always be a top priority. Unfortunately, in many countries, including Iran, the high cost of living can affect the quality and consistency of supervision. This is a significant problem because without proper supervision, buildings may not meet safety

standards or may have structural weaknesses. While the specialized training of engineers in universities has improved, there are still issues with the quality of materials used and the lack of necessary standards. Therefore, we should focus on both design and construction supervision to ensure that buildings are safe and resistant to earthquakes." During an earthquake, buildings are subjected to strong ground shaking, which can cause them to sway and deform. This can lead to structural damage, such as cracks in walls and foundations, and in severe cases, the collapse of the building. To prevent this, buildings must be constructed with earthquake-resistant design features, such as reinforced concrete and steel frames, flexible joints, and shock-absorbing devices. Additionally, regular maintenance and inspections of buildings can help identify potential weaknesses and prevent damage during an earthquake.

Virus infecting 90% of the world's population unleashes cancer



MOBITEC

The ubiquitous Epstein-Barr virus targets "fragile DNA," triggering dysfunction that is associated with a variety of cancers.

Researchers have discovered how the Epstein-Barr virus (EBV) exploits human genomic weaknesses to cause cancer and suppress the body's defenses. The study shows that the EBNA1 viral protein binds to a fragile site on human chromosome 11, leading to chromosomal breakage and genomic instability that may result in cancer. This finding could help identify risk factors and develop preventative strategies for EBV-associated diseases, according to SciTechDaily.

The Epstein-Barr virus (EBV) is easily spread through bodily fluids, primarily saliva, such as kissing, shared drinks, or using the same eating utensils. Not surprisingly then, EBV is also among the most ubiquitous of viruses: More than 90 percent of the world's population has been infected, usually during childhood. EBV causes infectious mononucleosis and similar ailments, though often there are no symptoms. Most infections are mild and pass, but the virus persists in the body, becoming latent or inactive, sometimes reactivating. Long-term latent infections are associated with several chronic inflammatory conditions and multiple cancers.

In a new paper, published April 12, 2023, in the journal Nature, researchers at University of California San Diego, UC San Diego Moores Cancer Center, and Ludwig Cancer Research at UC San Diego, describe for the first time how the virus exploits genomic weaknesses to cause cancer while reducing the body's ability to suppress it.

These findings show "how a virus can induce cleavage of human chromosome 11, initiating a cascade of genomic instability that can potentially activate a leukemia-causing oncogene and inactivate a major tumor suppressor," said senior study author Don Cleveland, PhD, Distinguished Professor of Medicine, Neurosciences and Cellular and Molecular Medicine at UC San Diego School of Medicine. "It's the first demonstration of how cleavage of a 'fragile DNA' site can be selectively induced."

Tender notice for the purchase of walnut harvesting and gathering machines

First Announcement

Dasht e Khorram Darreh Agri-Industrial, Animal Husbandry, and Aviculture Complex Company (Public Stock) intend to purchase walnut harvesting and gathering machines through public tenders. Receiving the tender participation form:

1- Company headquarters: Above the ring road - End of shahrak e Qods - Dasht e Khorram Darreh Company headquarter - Khorram Darreh city - Zanjan - Iran.

2- Company Site: <https://agri-khoramdareh.ir>

Tender time:

Wednesday, 2023/05/26, at 11:00 am at the Company headquarters.

Time to register offers: The offers must be uploaded to the company site (<https://agri-khoramdareh.ir>), or offer envelopes must be delivered to the administrative or commercial affairs of the company by the end of the working day, dated 2023/05/25

Note: No price offer envelopes will be received after this time.

Contact No:

Mr. Babaei +989305249560

Mr. Rahmani +989128828958

First Publish date: Thursday, 2023/04/15

Second Publish date: Saturday, 2023/04/18

PIC OF THE DAY

On a somber Wednesday evening, the community of Yazd came together to mourn and pay tribute to Amir al-Mu'minin (PBUH) on the 21st day of the holy month of Ramadan. The Hussayniyah Shahvali in Taft city of Yazd Province was the site of a traditional ritual known as Nakhl Gardani.

● MASOUD ZARE/ISNA

