

Newspaper Clips

February 5, 2011

Times of India ND

05-Feb-11 p-21

Nanosheet with high-tech potential developed

A novel way of splitting materials into sheets just one atom thick could lead to new electronic and energy storage technologies, scientists said. An international team of researchers said they had invented a versatile way to create one atom thick "nanosheets" from a range of layered materials, similar to the graphite used in pencils, using ultrasonic pulses and common solvents. The new method is simple, cheap, fast, and could be scaled up to work on an industrial scale, the scientists said.

'Solar death ray' can melt anything:

An aspiring teenage scientist in the US has created a solar death ray, out of thousands of mirrors, that can melt anything from metal to concrete. Eric Jacqmain, 19, demonstrated the \$90 contraption in a YouTube clip and claims it offers the "power of 5000 suns". It is essentially a fibreglass satellite dish covered in 5800 small mirror tiles, which focus the sunlight into a spot the size of a coin when positioned correctly.

'Toepener' opens doors with foot:

A student from the University of Minnesota has invented what is called as a Toepener, which allows people to use their feet instead of their hands when opening bathroom doors. Now people, who enter public restrooms, will not have to think twice about the germs they might carry from the door handles.

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Cure for Aids? Genes may hold key

New Method Boosts Immunity, Helps Body Vanquish HIV: Experts

London: In what could be called a possible breakthrough, scientists claim that they may have found a way to cure Aids.

An international team, which carried out a research funded by the Australian and Canadian governments, claims that they probably found a "genetic" method which would help the body cure itself of HIV. In fact, in a series of tantalising experiments on rats, the scientists were able to harness the immune system to such an extent that it defeated the virus and completely removed it from the body, the Daily Mail reported.

The breakthrough centres on a gene called 'SOCS-3'. When faced with an overwhelming infection such as the HIV, the gene becomes highly active and slams

Key protein vital in fighting breast cancer

US scientists have discovered a key protein responsible for deadly spread of breast cancer cells, a breakthrough which they claim could lead to new drugs for the disease that kills thousands of women every year. The tumour branches out to bone in up to 80% of cases of advanced breast cancer and current treatments are limited to relieving symptoms. Researchers at the Princeton University in the US pieced together the series of steps that allow a cancer that first formed in the breast to take root in the bones. They identified a protein, called Jagged1, found in high levels in tumour samples from women whose breast cancer has spread to the bone. It was found to be triggering a series of reactions called Notch pathway that give the cancer a vital foothold in the bones. PTI

the brakes on the immune response, allowing the virus to persist. When the scientists boosted levels of a hormone called IL-7, the gene "switched off" and mice were able to gradually remove HIV from their bodies.

While there have been advances in treating the condition, the vi-

rus' remarkable ability to outwit the immune system means that the recipe for a cure has so far eluded even the world's best researchers. The experiments on mice, the team believes, raise the possibility of a cure, not only for HIV but also for other long-term infections, including hepatitis B

and C and tuberculosis.

A lot of the work into finding a cure for these illnesses has focussed on trying to use the immune system to gradually eliminate the virus or bacterium. But the latest research suggests a short, sharp shock is far more effective. The scientists said the research had provided "excellent ideas" for new therapies that could target and boost host immune cells called T cells to fight disease, rather than targeting the disease itself. "The findings could help to develop drugs that target some of these host molecules, such as SOCS-3, and turn them off for very short, defined periods of time to reinvigorate the T cells, allowing them to regroup to fight infection," Pellegrini said. PTI

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Winds of change strike Mars, too

Washington: Mysterious dark sand dunes around Mars' northern polar cap are shifting with the seasons, as carbon dioxide gas changes form and sparks landscape-altering avalanches, said a study.

Images from Nasa's Mars Reconnaissance Orbiter, which has been collecting data from the red planet for five years, have shown the unexpected shifts, said the research in the journal Science. Noticeable changes can occur within the course of one year on Mars, which at 680 days is almost double the length of an Earth year, researchers said.

One major cause is the frozen carbon dioxide, or dry ice, that coats the area in the winter and changes to a gaseous form by the spring. "This gas flow destabilizes the sand on Mars' sand dunes, causing sand avalanches and creating new alcoves, gullies and sand aprons on Martian dunes," said lead author Candice Hansen of the Planetary Science Institute in Arizona.

Another cause is "stronger-than-expected gusts of wind," said the study, which describes wind ripples in the dunes appear to have been formed by gusts from multiple directions. AFP

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Clinical trials: US, China ahead

India Still Far From Becoming Hub For Medical Tests: Study

Kounteya Sinha | TNN

New Delhi: India is far behind US and China when it comes to hosting global clinical trials, contrary to popular belief. According to data released by the US National Institutes of Health (USNIH), India is currently hosting 1,400 clinical trials compared to 52,107 in the US and 7,356 in China.

Globally, the number of trials underway stands at 1.02 lakh. In an exclusive interview to TOI, Dr Surinder Singh, drug controller general of India, said India was far from becoming the world's clinical trials hub. "It's a myth," he said.



BUSTING A MYTH

It has long been believed that India's tremendous disease burden, drug naive patients and fast-growing health-care infrastructure is perfect for companies to carry out global trials for drug discovery. Trials account for two-thirds

of the development cost for new drugs. "It's a distorted picture," Dr Singh said. "The regulatory mechanism is still in the process of evolution. It will take some time before effective largescale phase zero and phase 1 trials—key to drug discovery development—take place in India."

With fears that India had become a hotbed for illegal trials, the DCGI made it mandatory in June 2009 for all trials to get registered with the Clinical Trials Registry of India (CTRI) before a single subject was recruited for the study.

Records show that between July-December 2007, only 11 tri-

als were registered (when it was optional). The number increased to 137 between Jan-Dec 2008, 546 between Jan-Dec 2009 and 806 between Jan-Dec 2010. According to Dr Singh, till January 28, 2011, the number of trials registered with CTRI stood at 1,581. "There were only 298 trials registered with CTRI before June 15, 2009 when it was voluntary. Now, it is a must. Trials going on or started without being registered in CTRI will be a serious violation," Dr Singh added.

According to USNIH, only 1,745 trials are currently on in south Asia, compared to 7,356 in East Asia.

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Medical edu to be under health ministry

Akshaya Mukul | TNN

New Delhi: Initiative by the Prime Minister's Office to decide if medical education be part of the HRD ministry's proposed National Commission for Higher Education & Research (NCHER) or the health ministry proposed National Council for Human Resource in Health (NCHRH) has been settled.

As per the new formulation, both NCHER and NCHRH will maintain their separate identity. Health education will be the part of NCHRH. But linkages will be established with NCHER on quality, content and curriculum. HRD minister Kapil Sibal and health minister Ghulam Nabi Azad have approved the formulation. A senior official said, "We have come up with

this formulation. It needs to be fine-tuned further. Agreement has been reached on the nature of relationship between NCHER and NCHRH. In the next few days, it will be put in place. There will be another meeting to finalise the formulation on February 15." Sources said, the health ministry opposed any move to take away medical education from the ambit of NCHRH.

'School education is pathetic in US'

Mini Joseph Tejaswi
& Sujit John | TNN

You could almost miss Krishnan and Meena Ganesh's office if you aren't looking for it. It's a small building in Domlur, a largely residential locality in Bangalore. It's from here that the couple conduct all the operations of TutorVista.com, an operation that has just been valued at nearly Rs 1,000 crore, with UK's Pearson taking a majority stake in it.

That valuation for a five-year-old online tutoring startup surprised many. Even the Ganeshs admit they had not anticipated the business would scale so fast.

The school system in the US is basic and more and more American parents feel the need to supplement their children's school curriculum with tuitions. "The US has the best universities, but their school education is pathetic," says Ganesh. The country's spend on education comes in at 7th; compared to food and grocery at No. 2 and music & DVDs at No. 5. "Among OECD countries, the US has been ranked 29th out of 30 in math and 27th out of 30 in science. This is why (US president) Obama keeps mentioning the need to improve education standards."

Ganesh sensed the need of American parents during travels to the US, and felt that Indian education expertise could fulfill that need. So in 2005, with a \$2.15 million funding from Sequoia Capital, he launched TutorVista.

The company developed a software platform that was a virtual university campus—providing for admission, classrooms, scheduling, col-

lections, accounting, recruitment and payroll for teachers. The entire system is managed online, and much of it is automated. The teachers, about 2,000, are spread across India, and the student base of 20,000 is largely in the US. A student can prefix a time with a particular teacher, or he can choose a teacher from among those available at a point of time by simply clicking on that option. "Our youngest student is a 6-year-old from the US while the oldest is a 65-year-old man from Korea who wants to speak in English," says Ganesh. Cumulatively about a million students have been tutored on this system.

There is huge aspiration among rural parents to offer quality education to their children

Meena Ganesh

Marketing was also a challenge. "Sitting in India, how do you get a student in the US to pay \$100 a month (the standard fee)? We did online marketing. There was a time when we were the largest online advertiser in India, spending up to Rs 2 crore a month," says Ganesh.

In 2007, TutorVista acquired Edurite Technologies, which was in the domestic education space, creating interactive digital learning platforms for classrooms. This business now is as big as the online tutoring segment. "The lessons are better explained with the help of 2D, 3D and animated content. Over 2,000 schools are using this platform," says Meena, who focuses on this business.

Schools in even small towns like Kovilpatti in

Tamil Nadu are using it. "There is huge aspiration among rural parents to offer quality education to their children. Rural schools are unable to attract or retain good teachers, so our content helps," says Meena.

The company also works on a build, operate, transfer (BOT) model, taking over and running a school on their technology platform for a period of time and covering the entire syllabus. Currently, 19 schools are under this programme.

Ganesh and Meena first met at IIM-Calcutta in the mid-1990s, got married soon after, and since then it's a partnership that's been as strong both at home and outside. They are among the pioneers of the BPO business in India, having set up a company called CustomerAsset in 2000.

That business was hit during the dotcom bust and then by 9/11. "But luckily, we had raised \$3.3 million just before the VC doors shut with the bust," says Ganesh. In 2002, ICICI bought the business. "We had by then become profitable; it was a decent deal. But could we have grown, may be not, because none of the funds that had invested in us were alive to fund us further. And Wipro, Infosys, etc had come into the space."

Meena had stints with Microsoft and as CEO of Tesco's operations in India, but Ganesh has been mostly an entrepreneur. Before CustomerAsset, he seeded a hardware company called IT&T. He seems to regret he did not then see the software boom coming. "In the mid-1990s, if we had put into software the effort we had put into hardware, we would have been a thousand times bigger."

In 2002-03, Ganesh funded a high-end data analytics company called Marketics, which WNS later acquired. That gave Ganesh a mega return.

So what do they plan next? "We still hold 20% in TutorVista, and I see TutorVista as the next startup. In cricket, after a batsman





hits a hundred, he takes a fresh guard, mentally setting the clock to zero. Otherwise he becomes complacent. In our mind, we are taking a new guard. From \$213 million in revenues to \$1 billion is what we want to do. With the Pearson brand name, capital, access to their US student base for our online business, we have all the elements to do a billion dollars," says Ganesh.

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How not to get duped by fake foreign institutes

Charu Sudan Kasturi

■ charu.kasturi@hindustantimes.com

NEW DELHI: It was a chance, forwarded email trail that saved Mumbai-born Rahul Seth from spending thousands of dollars and a year of his life at a sham flying training school near Brisbane, Australia.

"I was lucky. The email trail - which a friend chanced upon and forwarded— had angry responses from students duped by the Australian institute I was planning to go to. I found that the institute was making the same, false promises to me too," said Seth, now a pilot, recalling the February 2009 incident.

Indian students keen to study abroad have over the past few years been duped on numerous occasions by fraudulent institutions and unscrupulous agents across continents and courses.

But government officials, students and education counsellors point out a commonality across cases of fraud against students. Students planning to attend an educational institution abroad must connect with alumni of that institution before finalising their plans to prevent fraud such as the Tri Valley University (TVU) scam, they concurred.

"I call it the alumni factor. You can't go too wrong as a student if you are going to an institution that has produced happy, proud and successful alumni willing

CONTACTING ALUMNI OF THE INSTITUTION IS THE BEST WAY TO PREVENT BEING CHEATED. ALSO STAY IN DIRECT CONTACT WITH THE VARSITY

to talk about their alma mater," said Bangalore-based consultant Rachna Dhingra.

Most established educational institutions today have alumni networks that are accessible through the Internet, and in popular social network sites.

"If students are unable to find a credible alumni network of proud alumni, there is something fishy with that institution. This is something we try to advise students applying to our country," said a United States India Educational Foundation (USIEF) official. "Had genuine students at TVU followed this principle, they would not have been duped," the official added.

Counsellors and officials also recommend that students correspond directly with universities. "There have been instances of agents falsely claiming to represent certain ... institutions. It is best for students to communicate directly with universities," an official said.



MORE ON THE WEB

hindustantimes.com/studyingabroad

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MATTOO SAYS NO TO V-C POST AT CENTRAL VARSITY

Arteev Sharma

■ letters@hindustantimes.com

JAMMU: Ending months of suspense, JNU professor Armitabh Mattoo has declined to take over as vice-chancellor of Jammu's Central University even after his name was cleared by the President of India.

The university is looking for its first vice-chancellor.

Mattoo talked to union human resources development minister Kapil Sibal on the phone on Thursday and conveyed his decision to him.

Mattoo was vice-chancellor, University of Jammu, from November 2002 to December 2008. He is the youngest person to serve in that position.

He is now with the School of International Studies, Jawaharlal Nehru University (JNU).

"Mattoo talked to the HRD minister yesterday (Thursday) and declined to take over as the first vice-chancellor of CUJ," an official source told HT, adding, "he expressed his desire that the sanctioned Central University for Jammu should be started without any delay as one crucial academic session had already gone waste..."

Mattoo had been appointed CUJ vice-chancellor on December 21 last year. President Pratibha Patil cleared his name in her capacity as visitor of all central universities.

His appointment had been hanging fire for six months because there was a great deal of opposition from some Jammu-based groups, which wanted someone from the region.

The HRD ministry approved the university in 2008 but it has remained a non-starter due to the controversy over the appointment of vice-chancellor.

In the 2002-08 period, Mattoo served as member of the National Knowledge Commission, a group that advised the PM.

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RM to launch e-marking system in India



Sudeshna Sen
LONDON

INDIAN students may soon get their exam papers back without any red ink if Terry Sweeney, CEO of the UK-based RM education, has his way. The company is planning to launch its unique e-marking system that allows examiners to scan and feed in exam papers, mark and correct them online, moderate on a real-time basis, split up sections, and generally reduce the risk of the dog eating up crucial sheets of paper.

Oddly enough, the technology has been developed in Trivandrum itself, and is finally finding its way into the Indian market. Trivandrum is RM's fastest growing centre, employing around 450 people, and still hiring. Says Terry Sweeney, "We've never considered it as an outsourcing operation, it's part of our company. They've been asking me for years when we're going to sell the products in the local market, but we believe in choosing the right time, and not forcing an entry."

RM Education, a GBP 380

million listed company which employs around 2,700 people globally, provides a wide variety of educational resources and technology to schools in UK and US. In India, it is also planning to launch an interactive whiteboard of its international portfolio. Sweeney says that while it is fairly obvious that going forward the technology spend from the private sector in education is going to boom in India, RM's global market entry strategy has always been to "learn by doing" in an overseas market. In addition, while a lot of RM's home market products are geared towards a state sector, including complex reporting and data capturing systems, the Indian market is clearly different - "you need partners in the Indian market, there are local companies already in the sector," says Mr Sweeney. Naturally, its relatively large presence in Kerala helps. And on that front, Sweeney is not half as cautious as he is about selling his products in India - "We'll be looking at expansion plans, and we intend to ramp up to about 500 people by October," he says.

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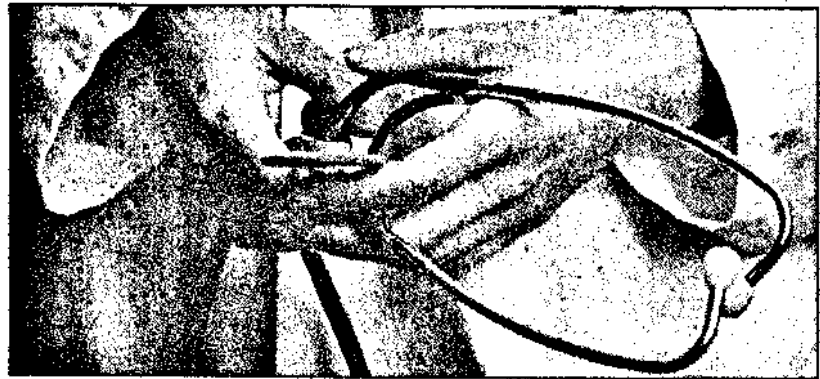
Health and HRD agree on medical education

Our Political Bureau

NEW DELHI

A BROAD agreement has been reached to develop a mechanism to link the two proposed regulatory bodies — National Commission for Human Resources in Health and the National Commission for Higher Education and Research. The agreement brokered by the Prime Minister's Office will put an end to the turf war between the health and human resource development ministries. The final details of the proposed linkage mechanism will be worked out at the next meeting of the health ministry's expert group and the HRD ministry's taskforce on February 15. This could mean that both bills could now be finalised for introduction in the budget session of Parliament.

Both bodies, the National Commission for Human Resources in Health (NCHRH) piloted by the health ministry and the National Commission For Higher Education and Research (NCHER) piloted by the HRD ministry, were announced in the President's address. HRD-appointed taskforce to draw up the framework for the NCHER



NO CONFUSION HERE: It's all about medicine

made the argument that medical education and the sanctioning of medical colleges should be brought under its ambit. Matters came to a head after indications by Prime Minister Manmohan Singh that the overarching regulator suggested by the HRD ministry's taskforce, NCHER, was conceptually a better framework. Even so, the prime minister is understood to have stressed the need to consult other stakeholders before a final view is taken.

With the health ministry not agreeing to give up medical education, arguing that it was linked to the provision of health services, the prime Minister's Office stepped in to find a workable solution. The understanding that has been arrived at is to ensure a synergy

between the two bodies. In order to avoid duplication, it has been suggested that health and higher education experts be included in both regulatory bodies. The draft NCHRH bill provides for the inclusion of the NCHER chairperson in its board. The draft NCHER bill has a provision for setting up expert advisory groups in specific areas and Board for Research Promotion and Innovation that would, among other things, formulate new, topical, trans-disciplinary research and innovation initiatives, and develop research linkages between industry, national laboratories/research institutes and universities. Last Friday, at a meeting chaired by principal secretary to the PM TKA Nair, it was decided to synchronise the two regulatory bodies.

Govt IT projects will be pvt sector driven

■ NIUs to be financially independent with sound corporate governance, transparency

fe Bureau

New Delhi, Feb 4: The Centre's e-governance projects could soon get a leg-up from a clutch of private firms who will help reinforce the complex IT systems for their smooth rollout. The panel set up by the finance ministry under Nandan Nilekani has recommended setting up of National Information Utilities to address the challenges faced by government's IT projects including the Goods and Services Tax Network, Tax Information Network, Expenditure Information Network and New Pension System among others. NIUs will be private companies with 26% government stake.

The NIU for GST will facilitate various services including dealer registration, payment gateways, integration

with banking systems, returns filing and processing among others through a common GST portal.

The Nilekani panel was set up last year by finance minister Pranab Mukherjee to advise on technology matters related to governance including pension and taxation. NIUs have been described as "pri-

rate companies with a public purpose". NIUs will have 51% private ownership while the government will hold a 26% stake. It will handle all aspects of IT systems involved in these government functions.

"An effective tax administration and financial governance system calls for creation of IT projects which are

reliable, secure and efficient," Mukherjee said in his budget speech for 2010-11, while announcing the creation of the Technology Advisory Group for Unique Projects.

The group, which submitted its recommendation to government Friday, also suggested that NIUs will be financially independent entities

with sound corporate governance norms, board composition, accountancy and transparency like those of listed companies, although these may not be listed. IT companies would not be allowed to take stake in these entities and no shareholder will be allowed more than 25%.

The panel has recommended that every project should have a dedicated 'Mission Leader' within the government with a mission execution team. The team will be manned by personnel who will possess a diverse set of skills including intimate familiarity with the government processes, specialisation in verticals such as technology, outreach, law, as well as the ability to manage a large decentralized organisation, among others.

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National Info Utilities: Private firms with a public purpose

National Information Utilities (NIUs) will help address challenges faced by government's IT projects. NIUs will be "private companies with a public purpose", with the government holding 26% stake and 51% private ownership. The Nilekani panel was set up last year by finance minister Pranab Mukherjee to advise on technology matters related to governance, including pension and taxation matters.



Nandan Nilekani

Cyber criminals turn more virulent

fe Bureau

Bangalore, Feb 4: It is becoming far more easier for non-technical criminals to launch online attacks on consumers and businesses with attack tools and services now becoming widely available in the underground economy. This will result in a much larger pool of cyber criminals, going ahead, a new report from Internet security software firm Symantec warns.

Attack toolkits - software programmes used to facilitate the launch of attacks on networked computers - are becoming relatively easier to use and no longer requires people with advanced programming skills to operate. The kits are now featuring easy to use icon-driven user interfaces, checkboxes and pull down menus. The user friendly features are evidence of increasing organisation and profitability of the under-



ground economy, the report notes. The prices of attack toolkits are on the rise as well. In 2006, a popular toolkit called WebAttacker was sold for \$15 while in 2010, another popular kit named ZeuS 2.0 was advertised

IT IS BECOMING FAR MORE EASIER FOR NON-TECHNICAL CRIMINALS TO LAUNCH ONLINE ATTACKS WITH ATTACK TOOLS AND SERVICES WIDELY AVAILABLE

for a whopping \$8,000 on the underground. The most prevalent attack kits currently are MPack, Neosploit, Nuke-sploit, P4ck and Phoenix.

ZeuS accounts for about 65% of adver-

tised toolkits. Symantec said in August 2010, it was used to harvest 60 GB of data from 55,000 compromised computers; the kit was used to steal \$1 million from UK accounts and \$3 million from US bank accounts.

"Earlier, it used to take a longer time to write exploits as hackers had to create their own threats from scratch. Now, attack kits have become accessible leading to a faster proliferation of attacks. The attack kits are being marketed with discounts, free services and guarantees," vice president of Symantec's India Product Operations Shantanu Ghosh said.

The service-based secondary economy is now booming with post-purchase services enhancing the profitability of toolkit developers. Regular feature updates are provided as well. The security software firm says the frequency of attacks rises when new exploits are released.

The panel has made recommendations in the areas of contracting, incubation, solution architecture, openness, transparency, and protection of the individual in the case of large, complex IT-intensive projects. The Group also noted that the Empowered Group on IT Infrastructure for GST in its IT Strategy for GST has recommended setting up a Goods and Services Tax Network (GSTN) which has the characteristics of an NIU. Although NIUs will be natural monopolies initially, they will be obliged to give access to competing NIUs when they emerge. Their responsibilities and the relation with the government would be as per an agreement between them. They should also have a well-defined human resource policy, the panel has recommended. Former Sebi chairman CB Bhavne, department of telecommunications secretary R Chandrasekhar, former chairman of Pension Fund Regulatory and Development Authority (PFRDA) Dhirendra Swarup, former CBDT member SS Khan, former CBEC member PRV Raman and Institute of Financial Management and Research Trust chairman Nachiket Mor were members of the panel.

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Sabharwal: Revival of Nalanda university a big responsibility

AMARNATH TEWARY ■ PATNA

It's official now. The first Vice-Chancellor of Bihar Chief Minister Nitish Kumar's most ambitious project — the Nalanda International University (NIU) — will be eminent sociologist Gopa Sabharwal.

She said the revival of the university would not only be "exciting but challenging also".

Nitish Kumar officially transferred over 500 acres of land to the university on Friday.

"Though, I was earlier involved in institution building but this is much more challenging and exciting. It is 21st century project and a very big responsibility," said the newly appointed NIU V-C after visiting the university site on Thursday.

An alumna of Delhi School of Economics, Gopa Sabharwal had earlier set up the Department of Sociology in the prestigious Lady Shri Ram College of Delhi University in 1993.

Before writing several books on sociology she had done her PhD in the subject from Delhi University on her research paper of "Ethnic groups and Ethnicity".

"Reviving an 800-year old historical university in the new world definitely be a challenging task. We've to bring back the old glory of the university and its prestige for which it was earlier famous for," she said.

She also said that her present assignment would be



Gopa Sabharwal

quite different from earlier ones as it would be a 24-hour job and not just a pure academic responsibility. "I've to think over for Nalanda University all the time," she reportedly has said.

She also said that her effort would be to realise the vision of the Nalanda Mentor Group (NMG) headed by eminent scholar and Nobel Laureate Amartya Sen.

Sen was to visit Bihar on Friday to release a survey report on the "status of elementary education in Bihar" but cancelled his programme at the last minute as he was reportedly indisposed.

However, the NMG will be meeting in February and many important decisions would be taken at the meeting, said Gopa Sabharwal. A number of eminent scholars like Meghnad Desai, N K Singh and others are the honourable members of NMG.

Scientists see dangers in ENERGY DRINKS

Energy drinks contain a slew of ingredients, most of which are unresearched, especially in combination with one another

JANE E BRODY

WITH widespread alarm about deaths linked to alcohol-and-caffeine-laced commercial drinks, it's easy to overlook problems that may be linked to the so-called energy drinks that spawned them.

But a number of scientists are worried about highly caffeinated beverages like Red Bull, Rockstar, Monster and Full Throttle, which are popular among teenagers and young adults.

The often bizarre combination of ingredients in these drinks prompted three researchers from the University of Texas Health Science Center at Houston and the University of Queensland in Australia to examine what is known — and not known — about the contents of these beverages, which are sold alongside sodas and sport drinks in supermarkets, drug stores and highway rest stops.

Their review of all the studies in English in the scientific literature, published in November in *The Mayo Clinic Proceedings*, led them to question both the effectiveness and safety of energy drinks.

LONG-TERM EFFECTS UNCLEAR

THE researchers noted that the drinks contain high levels of caffeine and warned that certain susceptible people risk dangerous, even life-threatening, effects on blood pressure, heart rate and brain function.

The authors noted that “four documented cases of caffeine-associated death have been reported, as well as five separate cases of seizures associated with consumption of energy/power drinks.”

Additional reports include an otherwise healthy 28-year-old man who suffered a cardiac arrest after a day of motocross racing; a healthy 18-year-old man who died playing basketball after drinking two cans of Red Bull; and four cases of mania experienced by individuals known to have bipolar disorder.

Using an abbreviation for energy beverages, Dr John P Higgins and co-authors wrote in the *Mayo* journal that because “teens and young adults, both athletes and nonathletes, are consuming EB’s at an alarming rate, we need to determine whether long-term use of EBs by this population will translate into deleterious effects later.”

His co-author Troy D Tuttle, an exercise physiologist at the Houston university, said in an interview: “Almost all the studies done on energy drinks have involved small sample sizes of young, healthy individuals in whom you’re unlikely to see short-term ill effects.”

“But what about the long term? What about liver and cardiovascu-



A 16-OUNCE can of an energy drink may contain 13 teaspoons of sugar and the amount of caffeine found in four or more colas. Other ingredients include taurine, glucuronolactone, B vitamins, ginseng, guarana, ginkgo biloba and milk thistle. Adding alcohol to the mix, as some people do, can be a recipe for disaster.

lar disease, insulin resistance and diabetes? We could speculate about a lot of possible problems, but we just don’t know.”

He urged the Food and Drug Administration to “step in and regulate this market,” which currently has few restrictions on the kinds and amounts of ingredients and the claims that are made about them. Manufacturers have labeled the beverages “dietary supplements,” which absolves them of the federal regulations that govern sodas and juices and allows producers to make “structure and function” claims, like “enhances athletic performance” and “increases caloric burn and mental sharpness.”

As Tuttle described the marketing strategy for energy drinks, “the

companies have taken a cup of coffee — or two or more cups of coffee, added a lot of hip-sounding stuff and marketed it with a hot, modern, trendy push for young people who want to look cool walking around with a can of Red Bull. “Anyone can buy these drinks, even 11 and 12-year-old kids.”

In an e-mailed statement, the American Beverage Association said: “Most mainstream energy drink brands voluntarily put statements on their containers, including advisories about use by people sensitive to caffeine.”

Also, the organisation said many of its members voluntarily list the amount of caffeine on their product labels or have provided caffeine content information through their websites and

consumer hot lines.

Kevin A Clauson, a doctor of pharmacy at Nova Southeastern University in West Palm Beach, Florida, who had previously reviewed safety issues surrounding energy drinks, said his main concerns were “the amount of caffeine, which can be injurious particularly to people with a pre-existing cardiovascular abnormality” and “the effects of these drinks when they are combined with alcohol, which can have disastrous consequences.”

After several states made moves to ban Four Loko, it was reformulated to remove the caffeine and two other ingredients, guarana and taurine, but Clauson said that was “unlikely to have a substantial impact” on young people, who will

continue to combine alcohol with energy drinks. The caffeine and caffeine-like ingredients in these drinks can mask the perception of inebriation — and that can increase the risk of drunken driving or other dangerous behaviours.

Tuttle, who works with sports teams, is concerned about the effects of energy drinks on athletic performance.

“A lot of kids are reaching for energy beverages instead of sport drinks, which unlike the energy drinks are mostly water with a nominal amount of sugar and electrolytes,” he said. “The energy drinks contain a slew of ingredients, most of which are unresearched, especially in combination with one another.”

A POTENT BREW

FOR an athlete engaged in intense exercise, the high doses of sugar in energy drinks can impair absorption of fluids and result in dehydration. A 16-ounce can of an energy drink may contain 13 teaspoons of sugar and the amount of caffeine found in four or more colas. Tuttle noted that caffeine, which is known to improve muscle action and performance, especially in endurance activities, is banned in many sports competitions. Thus, consuming an energy drink close to an event could disqualify an athlete.

Other ingredients often found in energy drinks include taurine, glucuronolactone, B vitamins, ginseng, guarana, ginkgo biloba and milk thistle. Tuttle calls guarana particularly worrisome because it acts as a stimulant, like caffeine.

“The B vitamins, which are important enzymes for energy utilisation, are added to legitimise the high levels of sugar,” he said. “These drinks are a kind of sensory overload for the body, with too much stuff coming in at the same time.”

Adding alcohol to the mix, as some consumers were doing even before drinks like Four Loko came along, can be a recipe for disaster. Under the stimulation of energy drinks, people may think they are sober when they are not. Such was the fate of Donte Stallworth, a wide receiver for the Cleveland Browns who killed a pedestrian with his car in March 2009 after drinking multiple shots of tequila and a Red Bull. Stallworth said he did not feel intoxicated at the time of the accident.

“Caffeine is being treated as a flavoring agent, not a drug,” Clauson said. “The average healthy person who consumes one serving of an energy drink is unlikely to encounter difficulty.” Those most likely to get into trouble, he said, are “toxic jocks” who overindulge and those with an underlying heart condition.

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Nudged by PMO, Health, HRD work out a compromise on regulatory bodies

ANUBHUTI VISHNOI

NEW DELHI, FEBRUARY 4

WITH intervention of the Prime Minister's Office (PMO), the ministries of Health and Human Resource Development (HRD) have found a formula to ensure a working coordination between two proposed regulatory structures for medical and higher education.

At a meeting called at the behest of the PMO on Friday, both ministries agreed to develop a coordination mechanism for efficient regulation of medical and science education. The two ministries had been at loggerheads on the issue with the HRD pushing for a single regulator in higher education and Health preferring to create its own regulatory system for medical education.

Sources told *The Indian Express* that as per the agreement arrived at, the proposed National Council for Higher Education & Research (NCHER) and National Council for Human Resource in

THE MINISTRIES agreed to develop a coordination mechanism for efficient regulation of medical and science education

Health (NCHRH) Bills will now have reference to each other and both will be piloted in Parliament.

The proposal for coordination entails that NCHER will have to consult NCHRH on every issue that pertains to medical education and this advice will be binding in nature. As far as basic science courses (Physics, Chemistry, Biology and Mathematics) are concerned, even though offered in medical colleges, the standards of curriculum framed by NCHER will have to be followed.

Legislation for both authorities will also outline the same and the two ministries will now work towards detailing

the finer points for the proposed coordination mechanism.

The compromise was effected following intervention of Prime Minister Manmohan Singh, who recently took a presentation on the proposed NCHER from the Task Force and asked that experts from both the academic side and medical education sit down together to work out ways to bring medical education under the single regulatory body.

The Task Force had been insistent on including medical education under the ambit of NCHER to make it an effective regulatory system.

The NCHER — critical to the reform agenda UPA II unveiled for the clean up of higher education — aims to do away with the current multiplicity of regulatory layers in higher education.

Once set up by an Act of Parliament, it will subsume the existing multiple regulatory authorities like the All India Council for Technical Education and UGC among others.

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गाजियाबाद में खुलेगी आईआईआईटी की शाखा

गाजियाबाद। नगरवासियों के लिए अच्छी खबर है। बहुत जल्द हॉट सिटी में इंडियन इंस्टीट्यूट ऑफ इन्फॉर्मेशन एण्ड टेक्नोलॉजी की शाखा खुलने वाली है। इसके खुलने से शिक्षा के क्षेत्र में करियर बनाने वाले लाखों छात्र-छात्राओं को लाभ मिलेगा। विश्वस्तरीय इस इंस्टीट्यूट की ब्रांच खोलने के लिए जीडीए व ग्रेटर नोएडा से सौ एकड़ जमीन निशुल्क मांगी गई थी। इस योजना को धरातल पर उतारने के लिए हुई बैठकों में ग्रेटर नोएडा ने सौ एकड़ जमीन मुफ्त में दिए जाने के नाम पर हाथ खड़े कर दिए। नोएडा के अफसरों ने भी हाथ पीछे खींच लिये। लेकिन जीडीए वीसी ने जमीन का इंतजाम करने के लिए 15 दिन का समय मांग लिया। शुक्रवार को जीडीए वीसी एनके चौधरी ने बताया कि हाईटेक सिटी विकसित कर रहे निजी बिल्डर मैसर्स उप्पल चड्ढा ने शासन द्वारा अनुमोदित एरिया में सौ एकड़ जमीन दिए जाने की मौखिक सहमति दे दी है।