

Business Briefs

Medicine

Vaccine for dengue and DHF nears success

After 13 years of World Health Organization-supported research, a vaccine for dengue and dengue hemorrhagic fever (DHF) has been developed at Mahidol University in Bangkok, Thailand, and only the field trials remain.

Phase 1 and 2 clinical trials have proven the vaccine to be both safe and immunogenic in humans. The next stage is to test the vaccine for its efficiency under field conditions in large numbers of children at risk. The main objective is to prove that the vaccine is effective in preventing dengue and DHF among children of the target age group in communities where these diseases are endemic.

Dengue and DHF outbreaks and epidemics threaten more than 85 countries throughout Asia, the Pacific Islands, Africa, and Central and South America. Statistically, dengue is one of the most underreported diseases, with cases thought to run in the millions. WHO believes DHF to be one of the most important and rapidly rising mosquito transmitted infections in the world. Dengue viruses of multiple serotypes are now endemic in most countries in the tropics. DHF hits mostly children. Fatality rates for the untreated cases are known to be as high as 15-20%.

China

Electricity shortfall grew since 'reforms'

Since economic reforms were begun in 1979, the shortfall in China's electric power production has increased and is "spreading" from the coastal regions to the interior, the Dec. 21 *China Daily* reported. Power generation is crippled by out-of-date, unstable, and unsafe facilities.

In 1990, China ranked 78th in the world with per capita power consumption of 600 kilowatt hours. In an advanced country, the rate is 5-10,000 kwh. Although told to finance power development by bank loans in 1980,

power industry enterprises still do not have the authority to invest or obtain loans. At the same time, 85% of increased revenue goes toward taxes, making it impossible for the enterprises to invest. While economic and industrial growth were 12% and 18% in 1992, power generation only grew 10.8%. The industry was also hit with a sharp increase in coal prices in 1992, but was not allowed to raise electricity prices. China's power generation has become increasingly dependent on coal rather than hydro-power.

In the coal power industry, investment has concentrated on generating plants, while the distribution network has simply been "ignored." What facilities there are have been worked 6,000 hours per year—20% more than international standards allow.

Science

'Dante' demonstrates new robotic technologies

The eight-legged robot named "Dante" began its descent into the steep slopes of Mt. Erebus, an active Antarctic volcano, on Dec. 31. Despite a breakdown, the primary objective of the mission was met, according to Dave Pahnos at the Carnegie Mellon robotics institute, which designed and built Dante. The robotic system was successful in demonstrating new robotic technologies, such as two new vision and foot sensing technology systems, which will be needed for missions to the planet Mars.

The mission, undertaken by the National Science Foundation and NASA, was also to examine volcanic activity and processes on site. The constant eruptions from Mt. Erebus have become an issue in the controversy concerning the ozone "hole," over whether it is caused by chlorofluorocarbons (CFCs) or natural sources of chlorine.

Dante stopped 21 feet down the side of the crater, after suffering a shakeup from minor volcanic activity during its descent and an unrelated break in its fiber optic cable, preventing it from obtaining measurements of gas composition on the bottom surface of the crater 700 feet below. Weather conditions left no time for repairs and a renewed attempt. NASA will

decide if Dante will make another attempt next year.

Health

WHO issues alert on crisis in Rwanda

The state of health of the displaced population in Rwanda is rapidly reaching a critical stage, Dr. Hiroshi Nakajima, director general of the World Health Organization, warned while visiting there on Dec. 17 and 18. He called on the international community to take immediate action to avert another crisis on the African continent.

Two years of armed conflict has resulted in a displaced population of 300,000 persons, out of a total population of nearly 7 million.

In the Kisoro camp, which now serves as temporary home to 250,000 people, "conditions are extremely severe, be it housing, nutrition, health care, you name it," Nakajima said. For the camp population in Rwanda, "freedom from hunger are meaningless words."

There are nearly 5,000 children under five years of age in Kisoro camp. Acute respiratory infections and pneumonia are widespread. Poor housing and living conditions, in general, create a fertile ground for various skin and eye diseases, including scabies and trachoma. "The camps in Rwanda serve as a grim illustration of what happens to malnourished people," said Nakajima. "By the end of January, there may be no food left. The stocks of medical supplies are running out."

Russia

Limited price controls put on some necessities

Prime Minister Viktor Chernomyrdin reimposed price controls over essential food products on Jan. 4, including milk, meat, tea, baby food, sugar, butter, sausages, and vodka. He justified the measures as needed to freeze inflation and the unjustified rise in prices of principal products and services.

Briefly

● **INDIA AND BHUTAN** are planning to build one of Asia's biggest dams, which will be on the Sunkosh River in Bhutan. It will take about 10 years and \$760 million to build, and is designed to generate 1,525 megawatts of electricity and irrigate 500,000 hectares of land in the Indian state of West Bengal.

● **250,000 CHILDREN** worldwide die every week of malnutrition and sicknesses that are often easy to prevent. A Unicef report says that \$25 billion per year would be enough to meet the basic needs of these children: food, clean water, medical treatment, and education.

● **TANKER CHARTER** rates, now about \$20,000 a day, are far below breakeven, Andreas Ugland, chairman of the International Association of Independent Tanker Owners, said Jan. 1. Ugland urged charterers to shun substandard vessels and drive them out of the market.

● **JORDAN'S ECONOMY** suffered losses of over \$570 million over the last two and a half years because of the sanctions against Iraq, according to the Jordan Shipping Agent's Association. Jordan's gross domestic product is \$3.98 billion.

● **POLISH** Prime Minister Hanna Suchocka is seeking special powers to rule by decree and to shape decisions concerning privatization of industry, agriculture, state finances and budgetary policy, and the public health sector, after the miners' strike was called off by the pro-government labor union Solidarnosc. A vote was expected in the Polish national parliament as early as Jan. 12.

● **E. GERALD CORRIGAN**, president of the New York Federal Reserve Bank, announced unexpectedly on Jan. 5 that he would resign in August. "Corrigan didn't jump, he was pushed," a City of London banking source said. "We have heard strong rumors that an indictment is about to be announced against Mr. Corrigan from the New York Attorney [Robert] Morgenthau."

The decree came one year after former Acting Prime Minister Yegor Gaidar had enacted the uncontrolled freeing of prices, but falls short of a definitive break with "shock therapy" policies. On Jan. 6, Deputy Chairman of the State Price Policy Committee Vitali Kaurov cautioned that the measures were "in no way" a "price freeze." The controls lower the allowable profit margin for enterprises and firms involved with these products from 20% to 15%. Prices will not fall, Kaurov declared. The goal is a "considerable slowing down of the speed by which prices rise."

The decree comes amidst reports that productivity fell by 24% in 1992, following a decline of 8% in 1991. The fall in production and productivity has especially affected those sectors dependent on imports of raw materials and component parts, and the food industry.

However, foreshadowing a break with Gaidar policies, Chernomyrdin called for the state to subsidize the prices for basic foods and medicines, to achieve "socially acceptable" prices, in a speech to Moscow industry directors on Jan. 6. He attacked "errors" by Gaidar, which have to be "corrected." He pledged to strengthen "the role of the state as the owner of large concentrations of industrial potential," and to end the "main mistake" of the past, i.e., attempts at financial stabilization not coupled with measures to restructure industry and "an active investment policy."

Fusion Energy

Indian scientist calls for accelerated program

Prof. Predhiman K. Kaw, director of the Institute for Plasma Research in India, urged a crash fusion energy development program, in a speech to a world fusion conference held in Würzburg, Germany on Sept. 30. In funding, "when we should be running, we are barely crawling," he stated.

"We need to build real life systems as soon as possible and then let them improve by competition," Kaw said. "We must bring fusion systems to a level such that fusion power is considered as a credible energy alternative on the fastest, technically realistic, time-scale. We must demonstrate generation of fusion

electricity as early as possible and show that it is environmentally better than the other competing energy sources. . . . We could have a demonstration power plant as early as the year 2015. We must make this the goal of the world fusion program."

Kaw, who had worked at the U.S. Princeton Plasma Physics Lab, said, "My conclusion is that the energy scene in the developing world is far from comfortable. The worst scenario is one where these countries are forbidden to burn coal because of environmental constraints, cannot buy oil-gas because it is too expensive, and cannot use nuclear power because of safety issues and international safeguards. So what do they do then? It is obvious that there is urgency to develop technology like fusion."

Infrastructure

Transportation grid the focus of Miyazawa tour

Cooperation on a regional transportation grid will be the focus of Japanese Prime Minister Kiichi Miyazawa's tour of Indonesia, Malaysia, Thailand, and Brunei—all members of the Association of Southeast Asian Nations (ASEAN), which began on Jan. 11. Miyazawa is expected to propose that Japan and ASEAN cooperate in building the region's transportation network and focus infrastructure projects that stretch over more than one nation.

Japanese government officials said that should the plan go forward, the first project would likely be construction of new roads between Thailand and Vietnam. Japanese sources said another highlight of Miyazawa's trip will be the enunciation of the "Miyazawa Doctrine," outlining Japan's readiness to participate in the reconstruction of Vietnam, Cambodia, and Laos.

Thai government leaders have been consulting with Vietnam and Laos over Thailand's initiative for land routes. Vietnamese leaders in December proposed that Thai Prime Minister Chuan Likphai the development of land routes linking Thailand's northeastern province of Mukdahan with Savannakhet in northern Laos and Vietnam's eastern province of Danang, the Bangkok daily *The Nation* has reported.