

Chickens lay anti-cancer drugs in eggs!

Investigators have developed genetically engineered hens that lay eggs containing high levels of anti-cancer antibodies.

The feat demonstrates how the birds can be used as "pharmaceutical bioreactors" to make many other drugs, the British gene therapy company Oxford Biomedica announced recently.

In a statement, it said the "breakthrough" was achieved in collaboration with the American avian specialist Viragen, Inc, and the Roslin Institute in Scotland, famous for cloning

Dolly the sheep. "For the first time, the collaboration has produced a potentially therapeutic protein selectively in the whites of eggs ... This technology is expected to offer a low-cost manufacturing alternative for the production of many protein drugs, with additional potential advantages in the quality of the products."

The therapeutic protein produced in the eggs is an antibody designed to treat malignant melanoma.

Source: <http://www.reuters.com>



SHERWIN GASTO/REUTERS



Investigators have developed genetically engineered hens that lay eggs containing high levels of anti-cancer antibodies. Eight-day-old chicks are at bred at a poultry farm 70 km (44 miles) north of Bombay.

Science-fiction moved a step closer to reality

Medical robots start work

Science-fiction moved a step closer to reality when robots nicknamed "Sister Mary" and "Doctor Robbie" started work at a London hospital. The pair allow doctors to visually examine and communicate with patients, whether they are in another part of the hospital or even another part of the world.

"This is a revolutionary concept which opens new avenues in telemedicine research and integrates technology with healthcare," said Professor Sir Ara Darzi.

Darzi, head of surgery, anaesthetics and intensive care at London's prestigious Imperial College is also a practising surgeon at St

Source: <http://www.reuters.com>



RALPH HODGSON/REUTERS

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The right complimentary feeding for infants

PROF DR MOHAMMAD NURUL HUQ

After birth, a newborn baby continues to get nourishment from the mother for a significant period as s/he used to get it from her in the uterus via the placenta. It is very interesting to note that the lactating mother gives the similar nourishment to her baby through breast milk as she did it through the placenta. In fact breasts take up the feeding charge from the placenta after the baby is born and the placenta is expelled.

It is now a global consensus that a newborn baby must be exclusively breastfed up to the age of 6 months. By exclusive breast-feeding we mean that the baby is getting only mother's milk and nothing else, not even a drop of water. A feeder bottle must not be used even for feeding expressed breast milk. In that case a cup and spoon should be used.

Why additional feeds are needed?

Exclusively breast fed babies can grow up and develop optimally up to 6 months of age. They become bigger and more active or playful requiring more calories (energy). An active playful child needs more energy than a child who is less active and less playful. It has been found that after the age of 6 months breast milk alone can no longer give sufficient calories to

the baby. For this reason at this age we should give extra food besides breast milk to satisfy the extra requirement. These feeds are therefore called complimentary feeds. No rigid schedule should be imposed on the child. Children are very rational in amount of food they take. A child allowed to take foods according to his demand will not usually be obese. Children become hungry and then take food. Otherwise they will prefer to play rather than eat!

Some special points

1. Non milk sugar should be limited to no more than 10 per cent of the whole calorie intake.
2. Atopic children who are commonly allergic should better have late introduction of complimentary feeds to avoid allergy.
3. Wheat should better be excluded during the first 12 months of age.
4. Animal milk (e.g. cow's milk) should not be given during first year of life.
5. Complimentary feeding session should be enjoyable both for the mother and the child. War of will may harm the child-mother bonding.
6. One of the important causes of vomiting is forced feeding.

Sometimes infant feeding becomes unnecessarily complicated by people of vested interest. Food must be evaluated by their value (calorie or energy,



minerals, vitamins, micronutrients, fiber, etc). A commercial pack of so called additional feed of one pound of weight hardly contains the food value Taka 10 only. So you should not use these sort of foods for your child.

Form of feeds

Liquid food like milk, juice, etc. are calorie thin. A baby's stomach measures just like his or her fist. Therefore, calorie-thin feeds can no longer meet the increasing energy demand due to increasing activities. So, you need calorie-dense feeds which are usually solid (or semisolid). Complimentary feeds therefore, should be made at home using home food

ingredients. This also helps the child to be accustomed with the family food items. The child also discovers the family through family foods. It is better to habituate them with his or her family foods earlier from the age of 6 months. A child not habituated at this age may reject family foods later.

Don't use blender machine to make foods very easy to take in. It may cause a bad habit in your child. Always remember that natural way is the best way at least for eating foods.

When to give extra food

Paediatricians in Bangladesh recommend complimentary

feeds from the age of 6 months. The initial feed should better be of plant origin to reduce hypersensitivity from food of animal origin. You can give rice powder (locally called suji) cooked well with sugar, oil, and some fragrant spice. Every baby likes it. You may add egg in small amount at the beginning; then increasing gradually. Never give egg in raw, poached, or half-boiled form. Cooking the egg well makes its allergenicity 70 per cent less. It also kills the poultry germs which may be present inside the eggs. So, always cook eggs well. If there is hypersensitivity, withhold eggs for 2 weeks to give it again. This time it may be better tolerated. Loving mothers think that egg should be fed separately, showing it to her baby! But it is easy to feed egg mixed with other foods to ensure proper cooking.

Eggs must not be given before 6 months. Egg protein may cause anaphylaxis (reaction of allergic origin). Usually there is no permanent egg allergy.

How to start?

Don't force your child. In the beginning the child may refuse food. S/he may spill. Don't expect that your child will take all the amount of feed you made. Usually 2-3 feeds are enough. Give these in between the breast-feeding.

Initially give thin feeds such as

suji. It is mainly carbohydrate and of plant origin. It is supposed to be less allergenic. To make it tasteful you can add vegetable oil and flavouring spices to it. Gradually introduce rice and dal mix (khichury), soup, etc. There will be thus a transition from plant to animal origin foods. It is more tolerable for your child. Fruits should be given from the beginning of complimentary feeds.

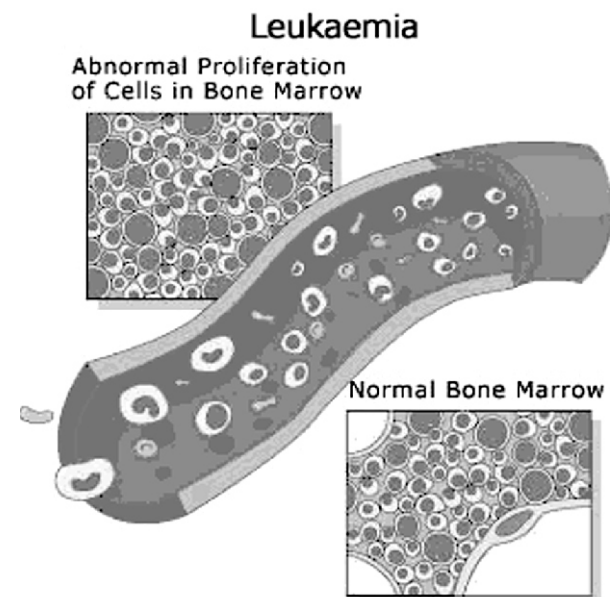
Khichury can be kept as a basic food. You can add variable foods with it daily. For example you can add chicken one day and fish on another day. You can add vegetables easily to khichury. Children who do not like vegetables often do not dislike it when mixed with khichury. Adding new items will make the khichury different.

Stop feeding when the child refuses to take further. Never intimidate the child. Give some water at the end of feed. Don't try to feed during sleep (only possible by using bottle). Remember that home made foods are always much better than the commercial foods. Family food is really good.

Breast milk should be continued up to 24 months of age. During this period no animal milk should be given.

The writer is a Professor of Paediatrics and Head of the Department of Paediatrics of Bangladesh Medical College.

Environment may be linked to Leukemia



Pesticides or chemicals in the environment may be behind the steady rise in cases of childhood leukemia, which have increased five-fold since the early 1900s, scientists said.

Fewer children actually die from the blood cancer than 40-50 years ago but cases have increased about one percent per year in the last half century.

"It represents a five-fold increase," Professor Michel Coleman of the London School of Hygiene and Tropical Medicine told a conference delving into the causes of the increase.

Leukemia is the most common childhood cancer, accounting for nearly one-third of all cases. Most of the rise is in children aged 1 to 4. Boys have about a 10 percent higher risk of developing the disease, according to Coleman.

Professor Denis Henshaw of the University of Bristol in south-western England and chairman of the conference, said a possible cause could be environmental agents or chemicals that were not around 50 years ago.

Children are thought to be predisposed to the illness at

birth by something that occurs in the womb but they do not develop it unless it is triggered by causes as yet unknown.

Ionising radiation, electromagnetic fields, viruses, infections and chemicals and pesticides are thought to be possible triggers.

Professor Alan Preece, also from the University of Bristol, presented research showing the unborn child is particularly sensitive to the effects of exposure to such agents. In laboratory and animal studies, Preece found levels of such compounds were higher in the fetus than in the placenta or the mother. "The environmental agents cross the placenta and accumulate in certain foetal organs, varying according to the nature of the agent," Preece said. "The exact levels are as yet unknown but we know that childhood leukemia is initiated in utero and this could well be a factor in the initiation."

More than 200 doctors and specialists are attending the week-long meeting, organised by Children with Leukemia, Britain's leading charity devoted to conquering the illness.

Source: <http://www.reuters.com>

IHFEC 2005: Creating world class healthcare delivery

TAREQ SALAHUDDIN, back from Singapore

The International Healthcare Facilities Exhibition & Conference 2005, (IHFE 2005) which will be held in Singapore from 31 August to 2 September this year, is an event providing latest information, trends and technologies that impact the placing, design, construction and management of healthcare facilities. IHFE 2005 is set to become the largest and most anticipated gathering of top-level healthcare providers, administrators and executives, facility managers and planners, builders, architects, design professionals and investors from Asia and beyond.

The elements of a successful healthcare delivery facility however, encompass cost management, availability of staffs, especially medical professionals and competitiveness are some of the other critical components. Studies have shown that well-designed patient environments contribute to faster recovery and better outcome. The increasing globalisation, institutional reforms and private sector participation have opened up tremendous business potential for architecture and design companies looking for regional expansion. There are also economic benefits for downstream sectors such as interior designers, urban planners, landscape architects, engineers, industrial designers, graphics designers, art consultants, sub-contractors etc.

The only event in Asia will bring together enterprising developers, operators and all others who are involved in the delivery of healthcare facilities and services, whether at strategic level or clinical practice, on a common platform as they exploit new business opportunities, consult with industry experts and gather information to help them make better informed decisions.

An international press briefing was held on 20th June at Pan Pacific Singapore in Singapore City, which was attended by health professionals and journalists from Asia and Western countries.

IHFE 05 is lined up by a panel of distinguished keynote speakers and prominent experts in their specialised medical fields to speak and lead discussion under four main themes like (i) planning, design and build, (ii) healthcare information technology, (iii) environment and facilities management; (iv) healthcare management and investment. With the main theme "New Century Healthcare Creating World Class Healthcare Delivery Facilities in Emerging Markets", the IHFE 05 conference is a learning platform for delegates. Health care providers and professionals will be able to seek for the latest information, keeping abreast of the international healthcare trends and technologies that impact the planning, design, construction and managing of healthcare facilities.

Among the keynote speakers, IHFE has been privileged to invite renowned cardiologist and Director of the Duke Clinical Institute, Dr Robert Califf as well as veteran hospital CEO in USA, Dr Fred Brown. Dr Califf will share his insights into the 'Future Trends in Clinical Research' while Dr Brown, who is the chairman of the joint commission on Accreditation of Healthcare Organisations (JCAHO), will speak on the topic 'Building Quality into Healthcare Facilities'.

IHFE delegates can learn much from the Swiss experience in building and managing world class hospitals through Mr Peter Kappert, who is the president of the private Hospitals of Switzerland.

Proven concepts and strategies are another area of focus. Healthcare providers will benefit from the Symposium presented by the UK Trade & Investment on the success of the Private-Public Partnership (PPP) and analyse if such financial models can be adopted in this region.

Today, creating a healing environment is as important as the provision of advanced medical innovations for clinical outcome. IHFE organisers are pleased to have invited the American Society of Healthcare Engineering (ASHE) to share their experiences on the key issues when developing building plans and sustainable design strategy.

The IHFE conference also provides for a good mix of views, ideas and strategies as well as the issues and challenges facing hospitals in Asia. Dr Balaji Sadasivan, Senior Minister of Health, Republic of Singapore is one of the keynote speakers who will be presenting on the healthcare scene in Singapore and the surrounding region, which is very important for the participants from strategic level.

"IHFE will provide an excellent platform for healthcare companies to gain insights into healthcare trends, network and market their products and services to an international audience." Said Mrs Tan Li Lin, Director, Lifestyle and Business Services, International Enterprise Singapore.

The Swiss House Singapore is a supporter of the IHFE 05. This represents a unique opportunity to showcase the excellence of Swiss companies operating in the biomedical devices and healthcare providing field and to inform relevant partners in Asia.

The Asian healthcare landscape is changing in tandem with economic developments within the region. Higher life expectancies, an ageing Asian population and increased awareness of the benefits of better healthcare are key drivers for growth.

IHFE 05, to be held at the Singapore Expo, is organised by Parkway Promotions Pte Ltd., a subsidiary company of Parkway Holdings Ltd, the largest private healthcare group in Asia and the international choice for patients for more than 35 years.

IHFE 05 will assist the valued participants

from different regions in formulating in market penetration strategies into Asia and the Middle East accordingly. By participating they can:

- 1. Meet key decision makers, qualify buyers and discuss business needs in a neutral environment.
- 2. Showcase their products and services, increase brand equity and generate sales needs.
- 3. Facilitate closer relationships with the existing customers.
- 4. Identify potential joint venture partners and form business alliances.
- 5. Get insiders knowledge of the market and better understanding of buyers' needs.
- 6. Evaluate and understand the impact of policy changes to health budgets and the market-place.
- 7. Gather market intelligence on competitors' products and services.

In total, IHFE 05 is expecting to host some 600 regional and international delegates and 2000 trade visitors to the exhibition where 150 exhibitors will showcase their products and services.

Opportunities at IHFE 2005 and Bangladesh perspective

In this digital age IHFE 05 exhibition provides an effective way to conduct business face-to-face with the most valued customers.

It is the platform for the participants to reach hundreds of potential buyers, distributors, agents and strategic partners. The knowledge and the vibes they picked up will enable them to develop appropriate marketing framework to penetrate local and regional markets.

For developing countries like ours, IHFE can play a major role in changing the scenario of healthcare facilities in the area. Investors can choose their right partners to set up world class healthcare facilities in our country. The private-public partnership can lower the burden of government providing healthcare. The management of clinical healthcare service in private level of different countries can be role model for Bangladesh. In our country, whereas there is almost no practice of proper planning to set up hospitals, international partnership can change the practice in the region.

Health tourism is the next big thing in Asia. Even in our neighbouring country like India, the healthcare market is estimated to bring in about US\$ 300 million a year from some 10,000 foreign patients and generate at least US\$ 1 billion a year by 2012. Bangladesh is a very good place to explore the healthcare facilities either by local initiative and investment or incorporation with foreign technical know-how and investors. The health tourism can contribute to the economy of the country by exploiting the emerging market of the country.