



CARF

News Bulletin

(Official Publication of the Cancer Aid & Research Foundation)

Member :

UICC (International Union
against Cancer), Geneva, Switzerland

Associate Member :

INCTR (International Network for Cancer
Treatment and Research), Brussels - Belgium

Internet Journal of Head & Neck Surgery [www.ispub.com] - official scientific journal of CARF
Journal of Clinical & Diagnostic Research(www.jcdr.net) - official research journal of CARF

Device can detect cancer in minutes

US researchers have invented a new microdevice that can detect cancer from a single drop of blood making the existing system that takes weeks obsolete

Researchers at Brigham Young University have created a micro device that could both decrease the amount of blood and time needed to test for cancer-markers in a patient's blood.

Chemistry prof Adam Woolley's research, published in a recent issue of the journal, Lab on a Chip, details the device and technique that would allow for effective detection of biomarkers in a blood sample in a matter of minutes rather than days or weeks. "You could walk into the doctor's office, the nurse could prick your finger instead of sticking a needle in your vein, and 30 or 40 minutes later, you'd get the results back in the same doctor's office," Woolley said.



Adam Woolley with his microchip that could speed up cancer detection

BETTER THAN ELISA

Woolley said the current approach for detecting biomarkers, ELISA (enzymelinked immunosorbent assay), works well as long as you're doing it in high volumes. This is why blood samples are usually sent to a lab where they can run dozens of samples at the same time. And while ELISA is efficient and cost effective if, say, there are 90 blood samples to process, the micro device would allow a technician to look at just one sample quickly and cost-effectively to determine if there are markers for, say, breast cancer or prostate cancer.

The microchip researched and created by Woolley and student Weichun Yang could lead to effective testing for cancer-marking proteins with the use of only microlitres of blood instead of millilitres - a smaller sample by a factor of a thousand.

"Detecting cancer biomarkers in a point-of-care setting can significantly improve the throughput of cancer screening and diagnose a cancer tumour at its early stage," said Yang, lead author on the paper. "These devices provide a robust, quick, and portable system for early stage disease diagnosis."

While ELISA uses a series of antibodies as hooks to grab targeted proteins and identify them, Woolley's method uses only one antibody step, which is then followed by a step where voltage is applied and the proteins are then identified by the speed at which they move.

The new micro device can also detect multiple cancer biomarkers in blood simultaneously. In this particular round of research, Woolley and his team used the chip to detect four biomarkers simultaneously, but the device has the potential to detect upwards of 10 or 20. Woolley said he and his team are now looking at ways to speed up the biomarker detection process even more. Ideally, he'd like to get the 30- to 40-minute process down to 20, 15 or even 10 minutes.

"If you learn from your doctor that you might have a life-threatening disease and that some initial testing must be performed, you don't want to wait weeks to find out what's going on," Woolley said. "You'd like to know that very day."

- Mumbai Mirror, November, 18, 2010

★.. CARF wishes all its well-wishers a very happy new year ..★

Thoughts Of...



Dr. Dilip Nikam

M.B.B.S, D.N.B
Incharge, Radiotherapy &
Oncology Department,
Cama & Albles Hospital &
J. J. Group of Hospital, Mumbai.

The word CANCER stimulates instant thought process followed by panic, frustration and then ultimate question WHY ME? I am working as a cancer specialist since many years but the reaction to the word CANCER is same, no matter who the patient is. What he is suffering from. I question myself, over and over again will the standard reaction ever change? Unfortunately, the answer is NO! Such deep-rooted is the fear of cancer.

The incidence of cancer is increasing hence the need for infrastructure to deal with it. The human resources, financial aid, emotional and social rehabilitation are a sheer necessity in cancer cure. It's a TEAM effort and everyone should work collectively to achieve the same. Medicine practice is based on evidence and oncology is no exception. Cancer treatment needs multimodalities like Surgery, Chemotherapy, Radiation therapy, Hormonal therapy, Targeted therapy and supportive care like Nutrition, Pain management, Rehabilitation and finally Hospice.

I am working in a government set up hence I feel that I am in a position to highlight governmental strategies for prevention, treatment, socioeconomic support and providing the necessary infrastructure for the same.

Now it is well understood that the best way to treat the disease is PREVENTION. Government and NGOs are trying their best to prevent the use of Tobacco in any form which is responsible for 30-35% cancer cases (Head & Neck cancer is common in Indian men). The second best way to treat cancer is early detection and screening test like Papsmear which helps in treating cervical cancer and achieving complete cure. This is a big achievement if we consider the fact carcinoma cervix is the most common cancer in Indian women.

It seems that government has understood the gravity and is taking necessary measures slowly but surely. Upgrading the existing oncology departments are not a bad start. Already numerous financial schemes like jivandayi yojna are there for people living below the poverty line and recently the government has made the availability of chemotherapy drugs easier for poor people at almost no cost. Also fortunately there are few more financial schemes for poor and needy patients in pipeline. We cannot say it is only the responsibility of the government to do something to eradicate cancer. It is also each of our responsibility. Keeping that social responsibility in mind, many NGOs are playing their role in cancer cure and I am glad to say CARF is one such organization. I congratulate them and request them to continue their support for cancer patients.

YOU CAN GET BREAST CANCER FROM YOUR FATHER |||

A NEW study has revealed that women at risk of breast cancer miss out on tests and early diagnosis because their father's family's health history is disregarded. Canadian researchers found that women were more likely to report a history of the disease on their mother's side. A UK cancer charity said a father's history was "often overlooked". The Lancet Oncology research, led by Jeanna McCuaig from the Princess Margaret Hospital in Toronto, found that despite the equal chance of inheritance from mother or father, the maternal history seemed to be taken more seriously. "It's important to know that faulty genes can be inherited from the father, as well as the mother," the BBC quoted Dr Caitlin Palframan Breakthrough Breast Cancer as saying.

Two reasons were cited for this: lack of knowledge in women about the risks, and a similar problem among family doctors, who did not ask women about the history of breast cancer on their father's side. "However, this is unusual as only around one in 20 of all breast cancers are due to inherited faults in known genes," Palframan said. The research is published in Lancet Oncology.

Mumbai Mirror, October 26, 2010

Now, better marker for breast cancer |||

In what could revolutionise breast cancer treatment, American scientists have created a new material that could help surgeons locate the tumours more accurately. Researchers at the University of California said the silica microbubbles they have created could also reduce the need for second surgeries and minimise pre-surgical discomfort for patients.

Times of India, September 20, 2010



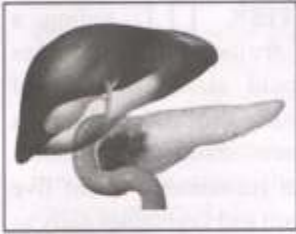
Mammograms have modest impact |||

Mammograms have only a "modest" impact on reducing breast cancer deaths, according to a study that added to a growing debate on the effectiveness of the routine screening. The research in the New England Journal of Medicine found that a Norwegian screening program resulted in a 10% reduction in breast cancer mortality among women between 50 and 69 years. This figure was "disappointingly small", and below the 15 to 23% reduction estimated for many years by US public health officials, said Gilbert Welch, a medical researcher at Dartmouth University, in an editorial along with the study.

Times of India, September 25, 2010

Pancreatic cancer grows slowly, can be detected early |||

Washington: Pancreatic cancer grows slowly, taking years and even decades to develop, a finding that offers the chance to catch it early and cure it, researchers have reported.



They said their findings confirm that one of the most lethal cancers kills not because it spreads like wildfire, but because it does not cause symptoms until it is advanced. "That provides a large window of opportunity to try to detect the presence of these cancers in

the first 20 years of their existence, before they become lethal," said Bert Vogelstein of Johns Hopkins University in Baltimore, who helped lead the study. "If one can do that, one can in principle cure them by surgery," Vogelstein added.

Pancreatic cancer is one of the deadliest cancers, killing 95% or more of its victims within five years of diagnosis. Vogelstein's team did a kind of genetic archeological dig into pancreatic tumors.

They collected tissue samples during autopsies immediately after patients died from pancreatic cancer, as well as from three patients whose tumors were surgically removed in an attempt to save their lives. In two papers in the journal *Nature*, the researchers described how they used mutations in the tumors as a "molecular clock" to time the evolution of the tumors. DNA mutates at a rate that can be calculated and the researchers already knew which mutations were caused by pancreatic cancer.

'We have hundreds of flawed genes'

Humans carry up to 100 genes that are responsible for diseases such as diabetes and cancer, a new study has found. And there are about 300 genes which are so flawed that they don't work at all, according to a team of international scientists who analysed the tiny genetic differences between individuals under the "1,000 Genomes Project".

Times of India, November 29, 2010

Low-dose aspirin slashes colon cancer risk |||

Lowdoses of aspirin, taken daily and over the long term, cut cases of colorectal cancer by a quarter and the death toll from this disease by a third, says a study published in the *Lancet*. Aspirin is already recommended in low, daily doses by many doctors for patients at risk of a heart attack or a stroke. High doses of this cheap, over-the-counter medication have similarly been found to help prevent cancer of the rectum and colon. But, studies have also found, the benefits may well be outweighed by the risks, such as increased bleeding from high aspirin use. Researchers followed up four trials on the cardiovascular impacts of aspirin. Taking aspirin reduced the risk of cancer by 24% and the risk of dying from it by 35%, found the experts.

Times of India, October 23, 2010



Nose drops that could treat brain cancer |||

WASHINGTON

Scientists have reported the development and testing of a drug that could treat brain cancer, and can be given as



nose drops. The new form of methotrexate promises to be effective in cancer treatment unlike conventional methods wherein anticancer drugs have difficulty reaching the brain, they said. This happens due to a so-called bloodbrain barrier (a protective layer of cells surrounding the brain) prevents medication in the blood from entering the brain.

However, Tomotaka Shingaki said that new evidence indicates that some drugs administered through the nose, either as nose drops or nasal spray, can bypass this barrier and travel directly into the brain.

When tested on lab rats having brain cancer, the nose drop drug reduced the weight of tumours by almost one-third.

"The strategy to utilise the nose-brain direct transport can be applicable to a new therapeutic system not only for brain tumours but also for other central nervous system disorders," the article noted. The report appears in *Molecular Pharmaceutics*, a bi-monthly journal.

Mumbai Mirror, September 24, 2010

Gene link to ovarian cancer found |||

In what could pave the way for early detection of ovarian cancer, scientists claim to have pinpointed new genetic variants which are associated with the risk of developing the disease in women. An international team has identified the genetic variants after studying genes of 10,283 women with ovarian cancer.

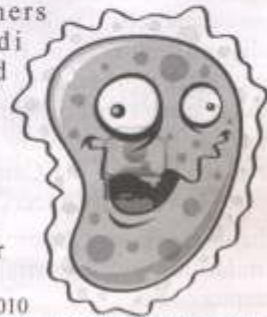
Times of India, September 22, 2010

Found: Cold virus that kills cancer

Washington: A study lead by a scientist of Indian origin discovered that a common virus, which can cause coughing and mild diarrhoea, has an ability to kill cancer. The scientists have found that the virus, called reovirus, grows like gangbusters inside tumor cells with a specific malfunction that leads to tumor growth and the findind led them to ponder over weather this virus can be used

as a treatment. Researchers at Georgetown Lombardi Comprehensive Cancer Center led by Deepa Subramaniam are conducting a clinical trial to see if the virus can target and kill certain tumor types and are now planning a phase II trial for people with advanced lung cancer with a specific tumor profile.

Times of India, October 22, 2010



FOOD AND CANCER

Bacteria that cause food poisoning can fight cancer |||

Scientists claim to have found evidence that salmonella, the bacteria known for causing food poisoning, could cure cancer. A team at Glasgow University has found how a protein in the bacteria manipulates what happens in the body's cells, causing them to die off — and this ability could be directed to kill cancerous cells, potentially curing the disease. In future, it is hoped that special forms of salmonella could be injected into patients to destroy their cancer, before they are treated with antibiotics to rid them of any remaining bacteria, say the scientists.

Times of India, October 25, 2010

Killer protein found, to help fight cancer |||

For the first time, scientists have discovered an "assassin" protein which attacks and kills rogue cells to protect the human immune system, a breakthrough that can lead to new treatments for a host of diseases, including cancer, malaria and diabetes.



Using powerful electron microscopes, a team of Australian and British scientists found how the protein, called perforin, adopts a unique mechanism of punching holes in the cells that have become cancerous or infected by viruses.

The ten-year study, published in Nature, is the first to show how perforin plays an important role of cleaning wayward cells that could otherwise cause several life-threatening diseases, including cancer. Helen Saibil, who led the UK team at Birkbeck College, said, "Perforin is a powerful bullet in the arsenal of our immune system — without it we could not deal with the thousands of rogue cells that turn up in our bodies through our lives."

"Perforin is our body's weapon of cleansing and death," said project leader James Whisstock from Monash University, Australia.

According to the team, perforin works by punching holes in rogue cells that have been "hijacked" by viruses or turned into cancer cells. The holes then allow toxic enzymes into the cells and destroy them. If perforin isn't working properly the body can't fight infected cells. And there is evidence from mouse studies that defective perforin leads to an upsurge in malignancy, particularly leukaemia, said Professor Joe Trapani, head of the Cancer Immunology Program at the Peter MacCallum Cancer Centre in Melbourne.

The scientists said the protein shared a number of molecular similarities with bacterial toxins like anthrax, listeria and streptococcus.

Times of India, November 2, 2010

Eating fruits cuts lung cancer risk |||

Eating a variety of fruits and vegetables regularly could slash the risk of developing lung cancer by almost a quarter, a new study has claimed. Experts often recommend to eat five portions of fruit and vegetables daily as a means to prevent cancer. The new study by researchers from 10 European nations showed that regular consumption of fruits and veggies cuts the risk of lung cancer by up to 23%.

Times of India, Nov 22, 2010



Don't drink very hot tea |||

Follow your mum's advice and drink tea five to ten minutes after making, for a new study has found, steaming tea increases the risk of throat cancer.

The British Medical Journal Research claims that drinking very hot tea (70 degree Celsius or more) can raise the risk of cancer of the oesophagus, the muscular tube that carries food from the throat to the stomach.

Researchers studied tea-drinking habits among 300 Iranians with OSCC and a matched group of 571 healthy controls from the same area. Nearly all participants drank black tea regularly. Compared with drinking warm or lukewarm tea, drinking hot tea was associated with twice the risk of oesophageal cancer, and drinking very hot tea was associated with eight-fold increased risk.

Likewise, compared with drinking tea four or more minutes after being poured, drinking tea less than two minutes after pouring was associated with a five fold higher risk.

DNA, 2010.

'Cancer not natural, but a man-made malady' |||

London: Cancer may not depend on natural factors, as British scientists claim it is largely a man-made disease caused by lifestyle factors like diet and pollution. A team at Manchester University investigated ancient Egyptian remains, looking for signs of cancer, and diagnosed the disease in an Egyptian mummy for the first time — but it says finding just one case after examining hundreds of mummies proves cancer was then extremely rare. The scientists also found very few references to the symptoms of cancer in ancient literature; there has been a huge increase in cancer cases since the Industrial Revolution, the Daily Express reported.

Professor Rosalie David, at the university's faculty of life sciences, said: "In industrialized societies cancer is second to cardiovascular disease as a cause of death. But in ancient times it was rare. "There is nothing in the natural environment that can cause cancer. So it has to be a man-made disease, down to pollution and changes to our diet and lifestyle."

Times of India, October 16, 2010



Cancer drug may end chemo misery |||

Scientists have developed a new cancer treatment that can safely deliver extremely high chemotherapy doses with minimal side effects. The new-generation drug, to be announced could be used effectively against many types of tumour, reports the Daily Express. The treatment, which has proved successful in trials on breast cancer patients, combines traditional chemotherapy with another new-generation drug that directly targets cancer cells.

Times of India, October 11, 2010

'For over-45s, an aspirin a day cuts cancer risk' |||

London: People above 45 years of age should consider a daily dose of aspirin to protect themselves from heart disease and cancer, researchers say. Evidence is building that the benefits for the healthy middle-aged and elderly "far outweigh" the side-effects, according to the academics. In particular, individuals at a higher risk from these two major killers can take the painkiller as a preventive medicine, they added, reports the journal The Lancet. The experts were addressing the Royal Society of Medicine a month after research from Oxford University showed that taking 75mg of aspirin daily for five years reduces the risk of getting bowel cancer by a quarter, and deaths from the disease by a third. A 75mg dose is a quarter of the standard over-the-counter pill, according to the Telegraph. Earlier studies had shown that a low daily dose could reduce the risk of developing heart diseases. Members of the panel said that the recent research was potentially of "enormous importance". Research is also looking into whether aspirin could have a preventive effect on other types of cancer as well.

Times of India, November 25, 2010

Vivek says no to smoking |||



Vivek Oberoi is known to get into the skin of the character and he does the same in his upcoming film Rakta Charitra. Playing the role of Ravi and a messiah for many in the film, the character just like Chandu (Company) and Maya (Shoot out Lokhandwala) demanded him to smoke. However, Vivek is one actor who has been participating actively in the No Smoking campaigns and also discouraging people to use tobacco. Hence, he refused to smoke on screen. He believes tobacco is injurious to health and he practises what he preaches.

Times of India, October 12, 2010

New test detects lung cancer early |||

In what may pave the way for early diagnosis and treatment of lung cancer, an Indian-origin scientist-led team claims to have developed a method which can detect the onset of the disease. Hemant Roy of NorthShore University and colleagues at Northwestern University say the method detects lung cancer by testing cheek cells in humans using pioneering biophotonics technology.

Times of India, October 7, 2010

Tumours can make own blood vessels |||

New study has revealed that tumours don't rely on their host's blood vessels for nourishment because they can make their own blood vessels. The findings offer an explanation for why a class of drug once heralded as a game-changer in cancer treatment is proving less effective than had been hoped.

Times of India, November 23, 2010

Mulund gets new cancer centre |||

Mumbai: A super specialty cancer center was launched in the Vertex Hospital in Mulund on Sunday. The 100-bed capacity hospital has also launched a cathlab for heart, brain and bones. Dr B K Goyal, a renowned cardiologist, said that the new centre will be very useful for people who are living in the Thane and Mulund area as they now will be able to save crucial time during major emergencies.

Times of India, October 25, 2010

Device to detect breast cancers |||

Scientists have developed a new disposable device based on advances in microfluidics that may help identify advanced breast cancer patients who are candidates for therapy with the drug trastuzumab (Herceptin). The new elastomeric, rubber-like device is designed to efficiently capture cancer cells overexpressing HER2 in circulating blood.

Times of India, October 1, 2010



Bandra Urdu Primary School, Bandra



Awami Urdu High School, Bandra (West)



S.I.E.S. College of Com. & Eco, Sion (East)



Geeta Nagar, Colaba.

Cancer Aid & Research Foundation held cancer awareness camps at various schools & colleges in Mumbai. CARF News Bulletins, Cancer awareness brochures, guide books and leaflets were distributed at all the venues, and films about cancer awareness were also screened.

Inauguration of CARF's Office in Nerul



Shri. Sagar Naik, Hon'ble Mayor of Navi Mumbai did the honors of inaugurating the office on November 10, 2010



**CARF
WELCOMES
ITS NEW
TRUSTEE**

Mr. Sajid Nadiadwala
Managing Director,
Nadiadwala Grandson Ent. Pvt. Ltd.
Mumbai, India



FLIGHT OF FANTASY

CARF gave young cancer patients wings on this Children's Day, in collaboration with Jet Airways. For most of the children who were part of this event, this was their first time ever on a plane.

Funnyman Cyurs Broacha who was present at the event made the ride even more memorable by his humour and his antics.



Help Given

On behalf of CARF Mrs. Rashida Kazi and Dr. Raj Tendulkar - Trustees of the Foundation distributed cheques totalling an amount of Rs. 5, 38, 497/- to poor cancer patients. As the treatment proceeds further help will be given to them.

ATTENTION READERS !

To enable us to communicate with you effectively, we request you to kindly send us your email ID, Birth Date and change of address if any, to tabassum.shaikh@cancerarfoundation.org | carf@cancerarfoundation.org



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- ✓ Cancer Research.
- ✓ Cancer Education through CARF News Bulletin, Patients information leaflets and e-news letter.
- ✓ Cancer screening and Detection Programme.
- ✓ Anti Tobacco and Cancer Advocacy.
- ✓ Free ambulance service provided to patients all over Mumbai / Thane
- ✓ Counselling for Cancer patients their families and cancer hotline.
- ✓ Providing free Cancer Drugs, Prosthesis & Instruments, to poor cancer patients.



The Govt. of India has also permitted us to receive overseas contributions under FC(R) Act, 1976 vide Registration No. 083780936. The same can be credited to 'Cancer Aid & Research Foundation' S.B A/c. No. 026104000088372. IDBI Bank, Prabhadevi Branch, Mumbai- 400 025. INDIA.

Please draw your cheque in the favour of **Cancer Aid & Research Foundation** and send it to its

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All views expressed in the CARF News Bulletin belong to the author. The Foundation need not necessarily subscribe to them.

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"Art for Living" - A 7 Day Exhibition and Sale of art from 07 - 13 March, 2011 at Coomaraswamy Hall of Chhatrapati Shivaji Maharaj Vastu Sanghralaya, Kala Ghoda, Mumbai is aimed at increasing awareness and support for the Cancer Aid & Research Foundation (CARF). Works of prominent and upcoming artists will be available for sale at this exhibition. Money collected will immensely help the poor and needy cancer patients.

WE INVITE YOU TO BRIGHTEN THE LIVES OF CANCER PATIENTS BY SUPPORTING THE 'ART FOR LIVING' EXHIBITION :

- By purchasing the art
- By sponsoring the event
- By sponsoring the brochure
- By publicizing the event in newspapers, by banners and Posters
- By developing a website for the show
- By financial contributions which are exempt under section 80G or 35AC of Income Tax Act 1961.
- By volunteering your time and services
- Or in any other way you wish

PLEASE DONATE GENEROUSLY and help CARF
save lives of the poor and needy cancer patients

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