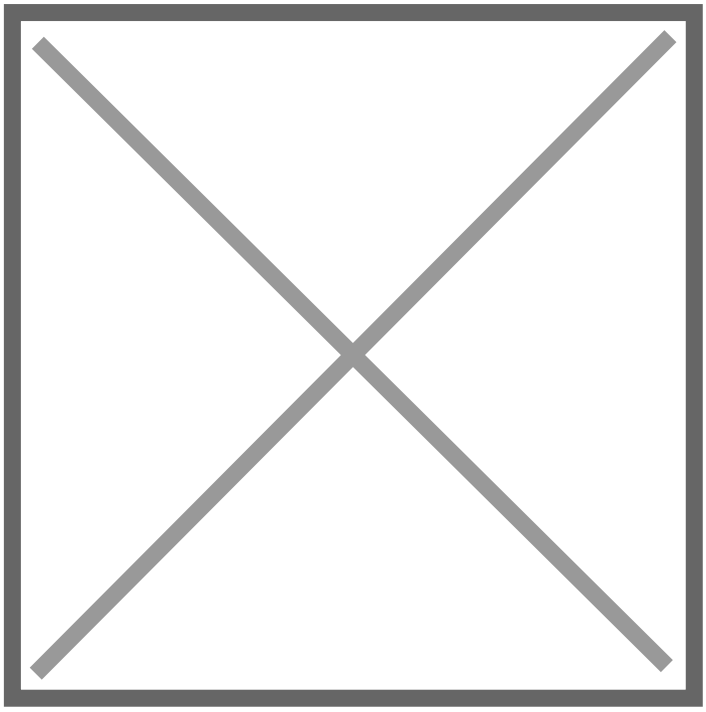
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Biotech fights cancer

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Biotechnology may become the latest ally of humans in fight ing its age-old enemy: cancer. A host of new drugs from the biotechnology sector are aiming to use the body's own cellular processes to halt growth of cancerous cells.

"The new generation of cancer medicines will be those that target genetics," said Dr Carl June, professor, Abramson Family Cancer Research Institute, University of Pennsylvania, while moderating a special discussion on cancer drugs at a media brunch featuring cancer-fighting food during the BIO convention in Philadelphia on June 19.

"There is hope," said BIO president Jim Greenwood. He noted that 29 biotech drugs that fight cancer are in the market now and more are in clinical pipelines. Biotech leaders are confident that biologic drugs will someday overtake standard chemotherapy treatment, said June. "Unfortunately, it takes longer than we would like."

Promising Drugs

The results of some of the new generation cancer-fighting drugs show promise.

One such experimental drug is called MDX-010, developed by Medarex, Princeton. The drug is currently undergoing late stage human trials.

MDX-10 is an antibody designed to help patients with advanced metastatic melanoma cancer to fight it with strong immune response. Medarex CEO Donald L Drakeman said the trials have shows some dramatic results with six of the 29 patients recording shrinkage or disappearance of the tumor cells. These patients had received a higher dosage of the drug.

In patients with such advanced cancer, even the conventional chemotherapy works only five percent of the cases and that too for six weeks. "In one patient with the cancer spreading to lung and brain, the MDX-10 treatment enabled to prolong life for 30 months. This is really makes the drug exciting," Drakeman informed. In other cases, three of the 27 patients experienced partial responses, with two of them responding to the treatment to live for 25 and 26 months.

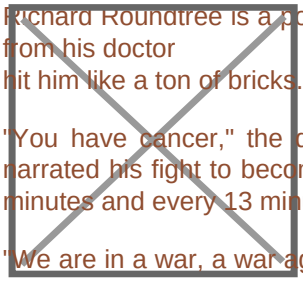
MDX-010 is a fully human antibody against human CTLA-4, a molecule on T cells that is believed to be responsible for suppressing the immune response. Medarex focuses on the discovery and development of fully human anti-body based therapeutics to treat life-threatening and debilitating diseases, including cancer, inflammation, autoimmune disorders.

Another promising treatment is from Cell Genesys of San Franciso. Cell Genesys CEO Stephen Sherwin said the company has developed a GVAX anti-cancer vaccine which is designed to stimulate the body's immune system. In one trial, cancer patients receiving GVAX had experienced a median survival rate of 26 months, eight months longer than chemotherapy-only patients.

The vaccine has been granted fast track clearance for phase 3 trials to treat patients with prostate cancer.

A lot of such promising drugs are under development. The problem, Sherwin said, was that it would take a lot more time to develop them fully. "The investment community is not really interested in investing in new therapies in the development stage because they don't know if they will succeed," he commented.

Human side of cancer



Richard Roundtree is a popular actor in the ongoing serial "Desperate Housewives". Nearly 12 years ago, three simple words from his doctor
hit him like a ton of bricks.

'You have cancer," the doctor told him. Roundtree couldn't believe that even a man would get breast cancer. Rountree narrated his fight to become cancer-free as he was now. Someone is diagnosed with breast cancer in the world every three minutes and every 13 minutes someone dies from the disease.

'We are in a war, a war against a vicious enemy without regard for age, sex or social position," Roundtree said. "This is a war that must be fought by all of us."

Roundtree has been at the forefront of cancer education.

His advice: Be alert to symptoms and get an early diagnosis, eat health foods, and exercise. "There are points in our lives where we are given another chance. I was," he said. " It is a message of empowerment. A message letting people know they have the ability to lessen the risk that cancer will be a part of their health history."

There were other high-profile cancer fighters at BIO. Fox News commentator Morton M Kondracke, whose wife died of cancer five years ago, has been a tireless crusader against cancer. "Cancer needs a tough fight. You are doing God's work by developing drugs that fight cancer," Kondracke told the biotech industry leaders. "Carry on."

Another touch of glamor came in the form of popular rock singer, Melissa Etheridge, who recounted her year-long fight with breast cancer. Praising the biotech industry for developing drugs to eliminate the " barbaric treatment of cheomotherapy involving washing one's body insides with chemical acids" she narrated her sufferings.

"There is no shame in having cancer. Don't hide it from friends," said the actress highlighting her decision to appear at this year's Grammy awards for a special performance, with her bald pate. " I threw away the scarf. What is there to hide," recalled Etheridge.

Cancer-fighting Foods

The National Cancer Institute of the US estimates that one-third of all cancer deaths may be diet-related. Although nutritionists do not understand exactly how foods can prevent and treat various cancers, they agree unanimously that diets high in vegetables and fruits can reduce the risk of contracting certain cancers. If people increase their fruit and vegetable consumption to at least five servings a day, cancer rates could be reduced by 20 percent, studies show. And the media brunch at the BIO convention on June 19, featured a menu of cancer-fighting foods.

The menu :

Spinach and avocado salad

Spinach and avocado salad with grapefruit sections and mandarin oranges, roasted pecans (nuts) with honey and molasses (jaggery), garnished with sprouted flax and balsamic vinaigrette.

Grilled chicken breast in a tomato cream sauce

Grilled chicken breast served with long grain rice, sundried cherries and toasted pistachios, in a chili-peppered tomato cream sauce. Served with broccoli florets and julienne carrots

Fruit parfaits

Blueberries, raspberries, blackberries and strawberries layered with yogurt and granola Beverages

Selection of fruit juices including grapefruit, blueberry, apple, cranberry, prune and grape juice or soy milk

How these foods fight cancer:

Avocados

are rich in glutathione, a powerful antioxidant that attacks free radicals in the body by blocking intestinal absorption of certain fats.

Blueberries:

Studies have shown that just one club of blueberries provide all the disease-fighting antioxidants needed in a a single day.

Broccoli

contains the chemical component of indole-3-carbinol and the phytochemcial sulforaphane, which both have cancer-fighting properties.

Carrots

are rich in beta-carotene, which may help reduce a wide range of cancers, including lung, mouth, throat, stomach, intestine, bladder, prostate and breast cancer.

Chili peppers

contain a chemical capsaicin, which may neutralize certain-cancer causing substances.

Flax

contains lignans which may have an antioxidant effect and block or suppress cancerous changes.

Grapefruits

contain monterpenes, believed to help prevent cancer by sweeping carcinogens out of the body.

Grapes (red)

contain bioflavonoids, powerful antioxidants that work as cancer preventives.

Oranges

contain limonene which stimulates cancer-killing immune cells that may also breakdown cancer-causing substances.

Raspberries

contain many vitamins, minerals, plant compounds and antioxidiants know as anthocyanins that may protect against cancer.

Soy products

like tofu contain several types of phytoestrogens - weak, nonsteroidal estrogens that could help prevent cancer by blocking and suppressing cancerous changes.