Green or black tea boosts total bloodstream antioxidant activity; and steeping tea for just 5 minutes releases 80% of its catechins.

Two studies showed catechins inhibit tumor growth in rats and mice, especially in lung-cancer-prone strains dosed with nicotine-derived carcinogens. A third rodent and dog project established catechins are not toxic, even at high doses.

Study Pitfalls

Despite all this promising work, some epidemiological data comparing tea drinkers and non-tea drinkers does not support the claim that tea prevents cancer. One study even found tea drinkers have higher cancer rates than non-tea drinkers; two others showed no tea effects. Difficulties sorting out possible confounding factors, such as other diet and health-related habits, may continue to hinder scientists searching for anticancer effects from tea, according to a spokesman from The Lipton Tea Co., Ltd., London.

Another pitfall— not understanding the compounds under study—derailed a 9-week, 24-subject, Lipton-sponsored study. While looking for tea's effects on colon cancer markers, Blumberg's team from Tufts did not take into account catechins' relative-speedy metabolism. Blumberg admitted that the team tested their subjects too infrequently, thus botching any chance of detecting tea's short-term effects. In defense of the null results, Blumberg added that finding modest protective effects, like those expected from tea, is tricky, even with large study populations.

A more promising early human study, this one from Beijing Dental Hospital, won robust applause from the tea-ed up audience as well as extensive media attention. The 6-month double-blind trial found 3 grams of tea (enough for about 2 cups) plus a topical tea extract reduces the size and proliferation of leukoplakia, precancerous oral plaque. Study leader Junshi Chen, M.D., said these results "provide some direct evidence of the protective effects of tea on cancer," but that larger, longer-term studies are needed.

— Brian Vastag

Thousands March on Washington, D.C., to Increase Cancer Research Funding

Tens of thousands of cancer survivors, researchers, caregivers, clinicians, and relatives and friends of patients and those lost to cancer marched in Washington in late September to demand that the United States government make the defeat of this disease its number one health-care priority.

Organizers of The March—"Coming Together to Conquer Cancer," estimated the total crowd on the Mall at about 150,000, based on the number of programs and water bottles distributed throughout the day. Participants came in pink T-shirts for breast cancer, teal-blue T-shirts for ovarian cancer, T-shirts created for The March, and T-shirts bearing the photos and names of relatives who had died of cancer. They carried placards, such as ones that said, "Families Fighting Prostate Cancer."

Some marchers wore baseball caps to hide heads with no hair from chemotherapy, while others went bald or showed scalps covered with the fuzz of new hair growing back. Some marchers used canes. Dan and Karen Graham of Castro Valley, Calif., came for their son Billy, who died of melanoma at age 22; they have established the Billy Foundation for melanoma education in his honor.

Cancer survivor Morgan O'Brien, 7, of Columbia, Md., came because she wants a future. "When I grow up I want to be a teacher and never have leukemia again," she said.

The March—whose chanted slogan was "no more cancer"—was the brainstorm of Ellen Stovall, executive direc-
tor of the National Coalition for Cancer Survivorship and a 26-year cancer survivor. The March first became real in the public consciousness when talk-show host Larry King announced it on his CNN TV show in April 1997.

Stovall said, “What we have done in preparing the ground for The March is to open up new possibilities for the survivorship movement. Cancer is our national crisis. No more silence, no more cancer. We are the faces of cancer survivorship. We are real and we aren’t going away.”

Sidney Kimmel, chairman of the Jones Apparel Group, Inc., and chairman of The March, added, “The March is a historic event... a turning point for our nation. The people have come to demand of their government: no more cancer.”

The March was endorsed by nearly 600 organizations, including the American Cancer Society, the American Society of Clinical Oncology, the American Association for Cancer Research, and the American Public Health Association. While The March was taking place, communities across the country held their own related events for people who were too sick to travel or could not come to Washington for other reasons.

Candles in the Night

The March began on Friday night, Sept. 25, when marchers and invited speakers gathered for an emotional candlelight vigil and interfaith service at the Lincoln Memorial. While marchers carried small lighted candles (actually flame-tipped white flashlights), participants on stage lighted real yellow candles designed by NCCS as a symbol of hope in memory of loved ones.

Participants in the candlelight vigil included the Rev. Jesse Jackson; Olympic figure skating gold medalist Scott Hamilton, a survivor of testicular cancer; breast cancer survivor Susan Shinagawa, of the Association of Asian Pacific Community Health Organizations in San Diego, Calif.; Dorothy L. Height, president emerita of the National Council of Negro Women; breast cancer survivor Rabbi Julie Spitzer of New York, N.Y.; Pat Spinetta, chairman of the Candlelighters Childhood Cancer Foundation; and prostate cancer survivor Gen. H. Norman Schwarzkopf, honorary chairman of The March.

Stovall said she intends to make the candlelight vigil an annual event. Setting the tone for the next day’s event, speakers at the candlelight vigil urged all present to work for unity in the fight to conquer cancer. “In a real sense, the civil rights movement taught us a lot,” said Height. “We cannot afford to divide ourselves now on who is suffering the most.”

Shinagawa added, “Inclusion is the solution,” and said she is determined to change the stereotypical view that Asians don’t get cancer. “Include all, leave no one behind,” said Jackson, who led those at the vigil in a chant of “Pain to power, pain to power.”

Mall of Hope

On Saturday, part of the Mall was transformed into a sea of tents and booths to provide information on cancer. The AACR offered a roster of medical and research professionals to discuss cancer research, while super-model Cindy Crawford, who lost her brother to leukemia 22 years ago, took part in the unveiling of the Children’s Cancer Quilt, whose handmade squares honor victims and survivors of childhood cancer. “My mother made a square for my brother Jeff,” she said.

At the No More Cancer Rally held on the Mall, speakers set a tone of hope. Vice President Al Gore drew cheers when he shed his coat and tie in the hot sun and announced, “This marks high noon for cancer,” a reference to the classic showdown western film “High Noon.”

Gore said, “We want to be the generation that ends the war on cancer.” He urged participants to envision a day when America is cancer-free, when an immunization against cancer will be as routine as a polio shot. He said he can remember coming to Washington and being profoundly moved by the Vietnam Memorial, which has granite walls with the names of the war’s dead veterans. “If we were going to honor all the people who have died of cancer, we’d have to
build 10 of those Vietnam walls every year," he said.

Gore said he and President Clinton support the largest increase in cancer research funding ever proposed — 65% over 5 years. He also said the administration wants more public involvement in cancer research, and said that by next spring the National Cancer Institute will have in place steps to ensure that the public has a "full voice" at every step of the way in the process of research funding. A recent Institute of Medicine report commended the NCI Director's Consumer Liaison Group for increasing the public's role in biomedical research.

The vice president also issued a challenge to the scientific community: develop new diagnostic techniques for every kind of cancer by the year 2000, so that all cancers can be caught at their earliest and most treatable stages. "When we crack the code, we win the war," said Gore, echoing the military metaphors used by Schwarzkopf and other speakers throughout the day.

Gore also urged researchers to streamline the enrollment process for clinical trials and greatly increase clinical trial participation — just 3% of people with cancer participate in clinical trials today. He asked support for an administration proposal that would fund a 3-year demonstration project in which Medicare would pay for the patient care costs of cancer clinical trials.

"Mr. Vice President, we will accept the challenges you gave us today," said NCI Director Richard Klausner, M.D. "We can do what Jesse Jackson said last night, and turn pain into power. . . . This is not a sprint, and we will not tire."

— Peggy Eastman

Researchers Seek Guidance on "Preproposal" for In Utero Gene Therapy

No one liked the term "phase zero" to describe the first proposal — still under development — to attempt gene therapy in unborn fetuses with genetic diseases that either cause prenatal death or lifelong disability. Much more apt, participants in a federal advisory panel agreed, is to call these attempts — should they move ahead — traditional phase I studies gathering information about safety.

Safety, however, is just one of the unknowns surrounding the milestone "preproposal," put forth as the first step in public discussions by W. French Anderson, M.D., of the University of Southern California, and Esmail Zanjani, Ph.D., of the University of Nevada, at a recent 2-day hearing before the Recombinant DNA Advisory Committee.

The RAC, which advises National Institutes of Health Director Harold Varmus, M.D., on gene therapy, listened as even the investigators acknowledged that an attempt to correct genetic defects in utero is an idea fraught with emotional, ethical, and scientific hurdles. Not the least of the problems, said Anderson, is how much blood volume can be safely removed from a developing fetus that weighs only 250 grams. Also, at issue, is what percentage of stem cells need to be corrected in order for a fetus with a genetic disease to derive more benefit than harm from treatment.

Under consideration for now are two diseases: adenosine deaminase (ADA) deficiency, a crippling immune disorder, which was the first disease ever treated with gene therapy; and alpha thalassemia, a blood disorder that is often fatal to fetuses prior to birth.

Which of these diseases might be the best choice for an initial genetic therapy attempt in the womb is undecided and raises still more questions, according to RAC members. Central to the debate is whether it would be better to treat a disease in which backup therapies exist as they do for ADA, or to proceed with one — alpha thalassemia — where parents might choose in utero gene therapy out of desperation because of a lack of other alternatives.

At this early stage, said RAC member Louise Markert, M.D., Ph.D., Duke University Medical Center, Durham, N.C., there is agreement that more data are needed on safety and efficacy, as well as information on possible inadvertent alterations in a fetus's germline cells — outlawed under federal regulations.

In January next year, the RAC will hold a Gene Therapy Policy Conference on the issue. "This has been a good dialogue between investigators and the RAC as to what is needed before such a protocol is fully developed," summed up Claudia Mickelson, Ph.D., Massachusetts Institute of Technology, Cambridge, and the RAC chairman.

— Susan Jenks