

HOUSTON CHRONICLE

May 26, 2009

Dream Team Targets Cancer Switch

By TODD ACKERMAN

A dream team of researchers from Houston, New York and Boston on Wednesday will receive a TV telethon-funded grant to accelerate treatment of numerous cancers activated by the most common cancer switch.

The approach, a break from the traditional government-funded strategy of targeting single cancers, will bring together top researchers from the University of Texas M.D. Anderson Cancer Center, Memorial Sloan-Kettering and Harvard to attack, first, endometrial, breast and ovarian cancers, then a host of other cancers. All involve the same mutated molecular pathway.

“What we learn in these women’s cancers will apply to many other cancers,” said Dr. Gordon Mills, a project co-leader and chair of M.D. Anderson’s department of systems biology. “The pathway involved affects at least one-third to one-half of all cancers.”

Sharing \$15 million

Because the research’s goal will be to determine which patients are most likely to benefit from particular drugs, Mills said it should mark the true birth of personalized medicine — “getting the right therapy to the right patient the first time.”

M.D. Anderson and the other two institutions will share a three-year, \$15 million grant to be awarded by Stand Up to Cancer, a charitable program established by media, entertainment and philanthropic leaders who’ve been affected by cancer. Its telethon last September aired simultaneously on CBS, ABC and NBC and raised more than \$100 million.

The program today is awarding five multidisciplinary, multi-institutional “dream team” grants totalling \$73.6 million.

Drug development

M.D. Anderson’s grant will attempt to speed recently developed drugs into Phase II trials much faster than would usually be the case, then use imaging techniques and tumor biopsies to identify biomarkers that will suggest how the drugs are best delivered, who’s most likely to benefit and what combinations are optimal.

Mills said that by the end of three years he expects the work will change the way patients are managed.

Genetic abnormalities in the pathway are found in about two-thirds of all endometrial cancer patients, a half of all breast cancer patients and a third of all ovarian cancer patients.

Among other cancers affected by the pathway are melanoma, leukemia, colon, prostate, lung and brain cancers.

Clinical trials here

In its normal state, the pathway promotes cell growth and protein synthesis. When genetic abnormalities trigger activity, it contributes to tumor progression, causes resistance to treatment and links to other cancer-causing pathways.

Clinical trials will be based at M.D. Anderson. The first, a Phase II trial for endometrial cancer, should start in about six months.

In all, the five grants involve more than 200 scientists and 20 leading institutions.

There are 38 scientists on the M.D. Anderson-Sloan Kettering-Harvard grant.

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