



"The Gray Matter" is a monthly publication of WNC Brain Tumor Support.  
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## October 2006



### From the desk of George....

Have you ever put your soul and heart into something, and then really find out that it really wasn't worth all the effort? Or more important, there were more important things that you could have been doing for yourself. For example, Robert was diagnosed with a glioblastoma brain tumor. Shortly after having surgery and chemo, Robert started volunteering at the local hospital. That is wonderful and very noble.

He started with three or four hours a day, and all of his spare time was spent at his computer. He thought that maybe he could find a cure on-line. He also started chatting with other brain tumor survivors and he even started his own website so that other people could read his posts and know how he was doing.

He started to work longer everyday. It came to a point where he was spending all of his time at the hospital and on-line. He wasn't spending this time with the people that loved him. His boat, that he was so proud of at one time, had cobwebs, and the trailer had a flat tire. He didn't go out to eat with his wife anymore; most of his meals were at the hospital cafeteria or at his computer hutch. His son was a baseball All-Star, but Robert didn't go to the games anymore. He was too busy doing his volunteer work at the hospital and replying to his e-mail. When he did come home, he was exhausted and went directly to bed. That was his routine. Everybody at the hospital admired Robert and said that he was a great guy. The patients to all loved him. His on-line friends really like him. They were always e-mailing him with information about brain tumors and trials.

Robert had a good MRI at his nine months checkup. It wasn't totally clean, but it was at least stable. Two days after his MRI, Robert had a stroke and died from complications.

So... did Robert choose his time well? Was his time wasted? No, I don't think so. But he did not stop to smell the roses either. He was too engrossed to smell anything.

Balance is the key. Have you ever have ice cream or rich chocolate that was so good that you kept eating more and more on until it wasn't enjoyable anymore and actually made you sick? Balance. Get a life and enjoy it. Do the things that you have always wanted to. Don't be sorry later on when you may be not be as healthy as you once was. One of the few things that you cannot get too much of, it is to quality of life. Don't miss it!

**George Plym**  
**President, WNC BTS**

## **Combined Therapies May Boost Immune Response And Long-term Protection Against Brain Tumors**

One therapy for treating brain tumors alerts the immune system to the presence of foreign material. A second therapy enhances the first and prolongs the immune system's response. Now, in an animal study conducted at Cedars-Sinai Medical Center's Maxine Dunitz Neurosurgical Institute, researchers have combined the two in a form that appears effective when injected directly into a malignant brain tumor.

Dendritic cell immunotherapy, pioneered at the Institute in the treatment of deadly, recurring brain tumors called gliomas, is one component of the experimental procedure. The treatment is usually performed after a patient's tumor has been surgically removed. Proteins from the tumor are collected, cultured and introduced in a Petri dish to dendritic cells taken from the patient's blood.

The "new" dendritic cells are then injected into the patient's bloodstream. When they encounter lingering tumor cells, they initiate an immune response.

Dendritic cells are specialized "antigen-presenting cells" responsible for alerting the immune system to foreign matter and eliciting an attack. They normally exist in the body to clear debris, such as dead cells, detecting antigens in the process.

The new approach bypasses the tumor-cell extraction and culturing process of dendritic cell immunotherapy. Instead, dendritic cells derived from the patient's bone marrow are attached to a virus engineered to express interleukin-23 (IL-23), a recently discovered cytokine, a protein that regulates immune responses. The dendritic cells are then injected directly into an existing tumor.

IL-23 allows dendritic cells to recognize antigens, such as live glioma cells, that otherwise escape surveillance without immune therapy manipulation. It also has several other properties that significantly improve the immune system's effectiveness against gliomas, which are highly aggressive cancers.

"Interleukin-23 promotes the function of dendritic cells and memory T-cells, important components in providing an initial response and long-term immunity against tumor cells," said John S. Yu, M.D., neurosurgeon, co-director of the Comprehensive Brain Tumor Program at the Maxine Dunitz Neurosurgical Institute, and senior author of the Cancer Research article.

An article by Yu and his colleagues in the March 1, 2006 issue of the same journal documented IL-23's potential effectiveness against gliomas and its impact on memory cells, which enable the immune system to "remember" antigens and respond in subsequent encounters. In that animal study, the researchers injected bone marrow-derived neural stem cells that were genetically engineered to produce IL-23. The stem cells tracked tumor cells and the IL-23 produced an immune response and long-term protection.

In the newly published study, 80 percent of animals receiving intratumoral injection of dendritic cell-interleukin-23 (DC-IL-23) survived beyond the observation period of 120 days, a far higher percentage than animals in control groups. Furthermore, surviving animals continued to live even after rechallenge, the implantation of additional glioma cells, and remained tumor-free at the end of the study.

"Dendritic cells and interleukin-23 appear to work very well together against glioma cells. Intratumoral injections brought about robust infiltration of tumor-killing T-cells and established a strong systemic response specific to the tumor cells,".

"These findings build on our previous observations as we work to develop an effective strategy to activate an immune response against brain tumors, and we're looking forward to rapidly translating this approach into a clinical trial," said Keith L. Black, M.D., director of the Maxine Dunitz Neurosurgical Institute and interim chair of the medical center's Department of Neurosurgery.

Source: Cedars-Sinai Medical Center

## Events

Mark your calendars!  
Visit our online calendar for more  
info on events .



## Upcoming Events

### **October 19 , Thursday**

WNC BTS meeting at West Presbyterian Church Hall, 690 Haywood Rd., Asheville (west). Refreshements at 6:15, meeting 6:30-8:00.

### **November 16 , Thursday**

WNC BTS meeting at West Presbyterian Church Hall, 690 Haywood Rd., Asheville (west). Refreshements at 6:15, meeting 6:30-8:00.

### **Parking at Normal Meeting Place**

The best place to park is in the Suntrust bank drive-thru parking directly along the drive of the adjoining the church. Do not park next to the night deposit box! If you park in the back lot of the church, for security reasons, the back door will be locked at 6:30. So, park on the side of the bank!



### **Hmmm...**

If nothing ever sticks to Teflon, how do they make Teflon stick to the pan?  
If the police arrest a mime, do they tell him he has the right to remain silent?  
If all the world is a stage, where is the audience sitting?  
If the #2 pencil is so popular, why is it still #2?  
How do you throw away a garbage can?  
Why didn't Noah swat those two mosquitoes?

**HAPPY  
BIRTHDAY**

### October Birthdays

Roz Rudy 10/4  
Diane Plym 10/26