



"The Gray Matter" is a monthly publication of WNC Brain Tumor Support.  
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## March 2007



George Plym is an 11-time brain tumor survivor. He is the founder and president of WNC Brain Tumor Support.

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

Most of the time when I write my articles, there is an attempt to make you think just a little bit. I try to make you realize how blessed we are and how we take our health for granted. I am not saying all of you take your health for granted. I know that most of you really appreciate life just as much as I do. We really do well despite our quirks and deficits. And then something happens that makes you be more appreciative. It could be a newspaper article; a movie, a TV program or something that has happened that makes you realize, "WOW, that could have been me." I had that feeling a couple months back when Dave Abbey started to take a turn for the worse in his treatment for a recurrent brain tumor. Dave has taken another turn. But this time, it is a turn for the better and not worse. (More about Dave's update in this month's GM)

Now it has happened again. I cannot prepare you in any way for what I am about to say. So I will go straight to point.

In the last week of February, one of our members, Mary Cromartie had a very bad accident. For those who do not know Mary, she was diagnosed with a brain tumor in the late '60s. She had done well after all these years until recent. A couple of years back, she had a recurrence and had more surgery. She was doing well until she started to have seizures. Her seizures were starting to be controlled with medication. She looked very good last month when we had our pizza party at Pizza Hut. She even threatened me (in jest) with her new Cane that she was so proud of! Than last week, her mom, Ann found her unconscious at the bottom of the steps of her apartment. She apparently had a seizure or lost her balance and fell down the stairs. She was rushed to Mission Hospital in Asheville where she was treated for multiple lacerations, a broken wrist, back injuries, and worse than anything....brain damage from the fall. The doctors did not give her much hope. As of March 2, she has been able to hold on and has opened her eyes after nine days of being unconscious. The doctors ordered another MRI to see what kind of changes had occurred. Mary continues to fight although she is in the intensive care unit in very critical condition.

I wrote this month's article to stress to you how precious life is. We never know when it will be our turn. Thoughts and prayers to Mary and Dave.

**George Plym**  
President, WNC BTS



**Mary**

## 'Gateway' gene discovered for brain cancer

Researchers have discovered that the same genetic regulator that triggers growth of stem cells during brain development also plays a central role in the development of the lethal brain cancer malignant glioma. In experiments on mice with such gliomas, they showed that knocking out the function of a particular regulatory protein, Olig2, almost completely eliminated tumor formation.

The researchers said their findings suggest that targeting Olig2 could offer a potential avenue for treatment that would kill tumor cells without affecting normal tissue. Dana-Farber Cancer Institute investigators Charles Stiles and David Rowitch and their colleagues reported their findings in the February 15, 2007 issue of the journal *Neuron*, published by Cell Press.

Olig2 is a "transcription factor"—a protein that regulates the activity of genes. Prior studies had indicated that it plays a central role in enabling neural stem cells to replicate during embryonic brain development. Also, studies have suggested that brain tumors might arise from aberrant neural stem cells or the neural progenitor cells to which they give rise.

Analyzing tissue from human gliomas, Stiles, Rowitch, and their colleagues discovered that Olig2 is activated in the stem and progenitor cells found in the tumors. In a mouse model of malignant glioma, they found that knocking out Olig2 function prevented tumor formation in 91 percent of the animals.

Their analysis of the role of Olig2 in both tumor cells and normal neural stem cells revealed that it plays a key role in enabling cell growth. Specifically, they found that Olig2 represses the gene for a cell-replication "brake" called p21, which normally inhibits cell growth. Thus, they concluded that Olig2 is a "unifying feature of normal cells and malignant glioma" and a "gateway" gene for brain tumor development.

"Lineage-restricted pathways that regulate brain tumor behavior may represent more specific therapeutic targets with little potential to affect off-target cell types," commented the researchers. "Brain tumors remain a major cause of cancer-related death despite advances in surgery, imaging, and conventional treatment modalities," they wrote. "This emphasizes the need to develop novel medical strategies based on a comprehensive understanding of the biological mechanisms underlying gliomagenesis."

They wrote that "our findings identify this core transcriptional regulator as an important candidate for antitumor therapeutics." While transcription factors are not generally considered useful targets for anti-cancer drugs, there are multiple ways that Olig2 could be inhibited, as well as ways to target other components of the regulatory pathway by which it exerts its influence on tumor growth, wrote the researchers.

## Update on Dave Abbey

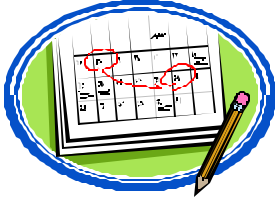
The latest news with Dave Abbey is that the Avastin and CPT-11 (aka Camptosar) seem to be working. Dr. Reardon from Duke said that the enhancement of Dave's tumor has greatly decreased. He said that it was like watching a 100 watt light bulb decrease to 5 watts. This indicates to him that the blood vessels supplying the tumor are "tightening" and that this is good. On the other hand, the tumor and swelling have not decreased. Dr. Reardon feels that this may result with more treatments. The very good news is that Dave is able to move better with his left leg and has more stamina.

We thank you for all of your prayers and well-wishes. Lisa and Dave Abbey



## Events

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



## Upcoming Events

### **March 15, Thursday**

WNC BTS membership meeting at West Presbyterian Church Hall, 690 Haywood Rd., Asheville (west). Refreshments served at 6:15, meeting starts at 6:30.

### **April 19, Thursday**

WNC BTS membership meeting at West Presbyterian Church Hall, 690 Haywood Rd., Asheville (west). Refreshments served at 6:15, meeting starts at 6:30.

### **Inclement weather policy**

The following procedure will be observed for inclement weather conditions for WNC BTS functions. We will go by A-B Tech. night class policy. Announcements concerning WNC BTS (AB Tech) will be made by 5:30pm on local radio and TV stations for night classes. A voice mail message will be recorded on the switchboard (828-254-1921) and posted on the ABTech website ([www.abtech.edu](http://www.abtech.edu)).

### **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!

## **I've Learned**

- That life is like a roll of toilet paper. The closer it gets to the end, the faster it goes
- That we need to be glad that God doesn't give us "everything" we ask for
- That money doesn't buy class
- That it's those small daily happenings that make life so spectacular
- That under everyone's hard shall is someone who wants to be appreciated and loved
- That to ignore the facts does not change the fact
- That when you plan to get even with someone, you are only letting that person continue to hurt you
- That love, not time, heals all wounds
- – Stepping Stones, Volume 7

**HAPPY  
BIRTHDAY**

### March Birthdays

Dave Abbey 3rd  
Matthew Haynes 8th