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**UMBTC RESEARCH
UPDATE**

**WEBSITE UPGRADES
GIVE PATIENTS AND
FAMILIES A VOICE**

SUPPORT GROUP INFO

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Hope STARTS HERE

at MARQUETTE GENERAL

OPTIONS FOR RECURRENT MALIGNANT GLIOMA

Most patients with a malignant glioma will experience a tumor recurrence. While there have been exciting advances in the treatment of these tumors at the time of initial diagnosis, the treatment options for recurrent tumors has been more limited.

Neuro oncologists at the Preston Robert Tisch Brain Tumor Center at Duke University are testing several chemotherapy protocols to treat recurrent malignant glioma, two of which are being used for Upper Michigan Brain Tumor Center patients.

The first protocol is CPT-11 and Avastin. CPT-11 (also known as Camptosar or irinotecan) is a chemotherapy agent that has been used to treat patients with colon cancer. It is administered intravenously with the main side effect being diarrhea. Avastin (or bevacizumab) is a monoclonal antibody that inhibits vascular endothelial growth factor (VEGF). In order for tumors to grow, they need a large blood supply. Tumors secrete VEGF in order to attract new blood vessels to the tumor. Avastin helps block this pathway, preventing new blood vessels from growing to the tumor. Avastin is used in colon cancer and non-small cell lung cancer. It is administered intravenously with the main side effects being gastrointestinal perforation and bleeding within the tumor.

A second protocol is Tarceva and Rapamune. Tarceva (or erlotinib) is an

oral chemotherapy agent that inhibits EGFR. EGFR is a cell surface receptor that promotes cell division. Rash and diarrhea are the most common side effects. Tarceva has activity against a variety of cancers. Rapamune (or sirolimus) is an oral chemotherapy agent. Rapamune inhibits an enzyme called mTOR. This inhibition prevents a cell from dividing.

We have treated several Upper Peninsula patients with the CPT-11 and Avastin protocol. Other UMBTC patients from have been enrolled in clinical trials at Duke.

CYCLING CHALLENGE SET FOR MAY 12

The Upper Michigan Brain Tumor Center will host the second annual Hope Starts Here Cycling Challenge on Saturday, May 12, during Brain Tumor Awareness Week .

Proceeds from the event will support and promote awareness of the Upper Michigan Brain Tumor Center.

There will be two routes again this year, suitable for all ages and levels of ability. The long loop is 35 miles and the short loop is about 5 miles. Registration is from 8:00 to 8:45am for the long ride and from 9:30 to 10:15am for the short ride.

CONTINUED ON BACK

WEB UPGRADES

We are pleased to announce an upgrade to the UMBTC website, www.hopestartshere.org.

The power of the Web is in its ability to bring together large numbers of people to share ideas and support each other. We have made available to our patients and caregivers several ways to take advantage of online community opportunities ranging from a very personalized private pen pal option to a very public online journal or blog.

The American Brain Tumor Association (ABTA) sponsors two pen pal programs, Connections and Bridges. These programs are one-on-one interactions online. This is a private and secure way to share your experience. The Community section of our website has a link to this program.

The next level of interaction allows you to share with more people. CarePages is a free service that essentially allows patients, families or caregivers to design their own web page. With this web page, you can post updates about your care and receive messages from family and friends. CarePages is very easy to use and it is secure because only the people you invite can read and post messages.

The most public opportunity is to keep an online journal, or blog. Through links on the UMBTC website, you can easily create your own, personalized blog. Your blog can be viewed by anyone on the Web, but you have approval over the comments that are on your blog. For an example, please visit the UMBTC blog at www.hopestartshere.blogspot.com.

Please take advantage of one or more of these opportunities. Keep in mind that these can't replace the important face-to-face interaction of a support group.

SUPPORT GROUP

Patients, their loved ones and anyone else affected by brain tumors are encouraged to participate in the Hope Starts Here support group. The group meets the first Tuesday of the month at Marquette General. Call 1-888-906-4673 for more information.

EXCITEMENT CONTINUES IN THE LAB

The past few months have been a productive time in lab at Northern Michigan University. Our main project has been establishing a genetic testing platform for malignant gliomas. We are looking at several genes important in brain tumor formation and in response to treatment. Here are two examples:

ZBTB7 is a gene that when present favors the development of cancerous change in a cell. It does this by preventing a tumor suppressor gene from working properly. (A tumor suppressor gene is a gene that works

to prevent precancerous and cancerous changes from accumulating in a cell). ZBTB7 is over expressed in a number of cancers, but has not been studied in malignant glioma. Our lab has confirmed the presence of ZBTB7 in the majority of malignant gliomas we tested. Our next project is to use a technique called RNA interference to decrease a tumor cell's production of ZBTB7 and see if the cell functions more normally or if it dies. This work will be presented at the American Association of Neurological Surgeons meeting in Washington, DC in mid April. The research has been given the BrainLab Community Neurosurgery Research Award.

MGMT is a protein that reverses the action of BCNU and temozolomide, two of the most powerful chemotherapy agents against malignant glioma. Tumors that produce MGMT tend to be resistant to those chemotherapies. Our lab has looked at several tumor samples for the presence of MGMT. Though this assay is in its early stages, it may some day be used to individualize brain tumor treatment. We are using RNA interference to decrease MGMT activity in tumor cells to see if we can make them more sensitive to chemotherapy.

The third major project is to develop a very rapid genetic testing process so that we can see what genes a tumor is expressing while the patient is still in the operating room. Someday, this may allow Neurosurgeons to apply treatments right to the tumor bed based on the pattern of gene expression for that particular tumor.

Follow the progress of the research on the website, www.hopestartshere.org.

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BIKE CHALLENGE

Lunch will be served from 11:30am to 12:30pm, following the bike ride. David M. Bailey, inspirational singer/songwriter and brain tumor survivor will perform a concert following the lunch.

The entry fee is \$25 and includes the ride, lunch, a T-shirt and the concert. On-site registration in the main lobby at Marquette General the day of the event is \$30. Participants may opt to increase their contribution by collecting pledges as an individual or a team. The individual or team raising the most money will be honored with a plaque. All riders must wear a bicycle helmet. Cyclists under 18 must have a parent sign a release.

Anyone wishing to attend the 1:00pm concert in the MGH Conference Center without participating in the ride may do so. There is no cost to attend the concert but donations will be accepted.

Pick up a brochure/registration form at Down Wind Sports, Lakeshore Bike, Quick Stop Bike Stop, SportsRack, and Marquette General's Skywalk information desk.

Online registration can be completed at www.active.com. The form can also be downloaded from www.hopestartshere.org. For more information, please call Laurie at the Upper Michigan Neuroscience Center at 906-225-4597 or 1-888-886-4644.

DONATION OPPORTUNITY

The Grateful Patients and Families Program provides another way for you to help advance the mission of the UMBTC. Gifts will help maintain cutting edge technology and patient and family centered programs. Learn more about the program through the Donation link on the UMBTC website, www.hopestartshere.org.