



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



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

The last time that I wrote , I said that I was having some problems with brain tumor side-effects... seizures. Thankfully, the seizures are mild. They are called focal or partial seizures. Nonetheless, they are scary because you never know if the seizure will go from partial to grand mal. My doctor has put me on a newer anti-seizure medication, Keppra. Since that time, I have been free of seizures and I am very thankful for that!

I started my morning today as usual, checking my e-mail, reading the newspaper online and checking to find out if my bids on eBay were holding up. From there, I normally check out cancer centers and universities hoping to find that someone has finally broke through the barrier and giving us hope that they have a cure. Not today. . . Not at Duke, not at John Hopkins, not at Sloan-Kettering and **not** at eBay or on the Internet.

The Internet is really great for information. But sometimes, too much information and way, way too much selling of cures that are proven not to work. It sickens me that people will prey on the emotions of the patients and the families of those who have been diagnosed with a brain tumor or cancer. So... don't spend your money on herbs and roots at cureall.com. I know too many people that trusted mail order shysters. Most of them are dead now. I am sorry to say, but the cure will not be found on line. Leave it to the researchers. Here is at a example of what research is doing. It is a little bit complicated and we really don't have to understand everything that is written, but there is hope.

*By genetically manipulating bone marrow-derived neural stem-like cells (BM-NSC) to express a recently discovered cytokine, interleukin (IL)-23, the cells showed protective effects in intracranial tumor-bearing C57BL/6 mice. Depletion of subpopulation lymphocytes showed that CD8(+) T cells were critical for the antitumor immunity of IL-23-expressing BM-NSCs and that CD4(+) T cells and natural killer (NK) cells participated in the activity. Furthermore, the IL-23-expressing BM-NSC-treated survivors were resistant to the same tumor rechallenge associated with enhanced IFN-gamma, but not IL-17, expression in the brain tissue. Taken together, these data suggest that IL-23-expressing BM-NSCs can effectively induce antitumor immunity against intracranial gliomas. CD8(+) T cells are critical for such antitumor activity; in addition, CD4(+) T cells and NK cells are also*

*involved.*

What does it all mean? It means a lot of mice with brain tumors are living longer.

Next week, March 13th will be another huge event in my life. . . *so far*. That's when I will have an MRI that will tell if my cancer has stopped, slowed down, or stabilized. Meanwhile at the mouse ranch, Mickey and Minnie Mouse and their cousin Mighty Mouse are sitting down having some wine and cheese talking about the real heroes of the family, the Lab Mouse....

**George Plym**  
President, WNC BTS

### ***Strange But True News***

#### **First Dinosaur Brain Tumor Found**

Cancer isn't just an affliction of the modern world, new research suggests. Scientists behind the preparation of a fossil belonging to a new *Tyrannosaurus rex* relative believe they may have discovered the first known fossilized brain tumor.

Tumors are rare, even in living animals. But as a soft tissue, the average tumor's chance of making it to the fossil stage is even slimmer, said researchers behind the find, making the discovery highly unusual.

#### **RELATED**

- \* Dino-Age Flyers Were Sharp-Eyed, Nimble, Study Says
- \* Ichthyosaur's Turtle Supper Causes Extinction Debate
- \* World's Largest Rodent: Buffalo-Size Fossil Discovered
- \* "Biggest Fish Ever Found" Unearthed in U.K.
- \* Dino Dung: Paleontology's Next Frontier?

The golf-ball-sized brain tumor appears as a spongy mass inside the skull cavity of a 72-million-year-old *Gorgosaurus* fossil, now on display at The Children's Museum of Indianapolis in Indiana. The probable tumor would have affected the animal's balance and caused other damage, explaining the many crippling wounds and fractures recorded in her skeleton.

"This is the most damage I've ever seen in a skeleton where the animal survived," said paleontologist Peter Larson of the Black Hills Institute for Geological Research in Hill City, South Dakota. "We were amazed by just how many pathologies, or healed injuries, this animal has," he said.

#### **Slender Cousin**

Larson and Children's Museum curator of natural history, Dallas Evans, announced the find at last month's Society of Vertebrate Paleontology conference in Minneapolis/St Paul.

Amateur fossil hunters Cliff and Sandy Linster first discovered the female meat-eater, near Choteau, Montana, in 1997. The specimen, dated to the late Cretaceous Period, was found among the remains of hundreds of fossilized *Maiasaura*, a type of herd-living, duck-billed dinosaur.

Species in the genus *Gorgosaurus* were *T-rex*'s slightly smaller, longer-limbed, and more slender cousins. They still packed a hefty punch, however: The average specimen was 25 feet (7.6 meters) in

length, weighed a ton (0.9 metric ton) or more, and was equipped with over 60 four-to-five-inch-long (ten-to-thirteen-centimeter-long) serrated teeth. Just 20 Gorgosaurus specimens have ever been found, all in North America. This specimen—a previously unknown species—is one of the most complete.

Black Hills Institute researchers were first alerted to the unusual features of this fossil when they set about preparing and cleaning it for the Children's Museum. Alongside multiple healed fractures, Larson and colleagues first noticed an unusual rounded mass in the fossil's cranial cavity earlier this summer. "We found a weird mass of black material in the braincase," said Larson. "It was very bizarre. I'd never seen anything like it."

### **Bad Balance**

Totally stumped as to what that mass might be, Larson and colleagues requested the assistance of veterinary pathologists from the pharmaceutical giant Eli Lilly and Company, a Children's Museum funder also based in Indianapolis.

Further probing with x-rays and an electron microscope revealed that the mass was originally formed from bony material, said Rachel Reams of Eli Lilly, but it didn't appear to be attached to the Gorgosaurus's skull. Ruling out the possibility that the mass was formed from skull fragments that fell into the brain cavity, the team decided that it was probably an extraskeletal osteosarcoma—a type of bone-producing tumors can form in soft tissues.

Submitted By Mark

## **Events**

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



## **Upcoming Events**

### **Mar 16 , Thursday**

WNC BTS meeting at West Presbyterian Church Hall, 690 Haywood Rd., Asheville (west). Refreshments 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!

### **Inclement weather policy**

The following procedure will be observed for inclement weather conditions for WNC Brain Tumor Support functions. We will go by A-B Tech. night class policy.

Announcements concerning WNC BTS (A-B Tech) will be made by 3:30 pm on local radio and TV stations for night classes. A voice mail message will be recorded on the switchboard.



### Hmmm...?

What are Preparation A through Preparation G?

Why is the alphabet in that order? Is it because of that song?

If I melt dry ice, can I take a bath without getting wet?

Crime doesn't pay...does that mean that my job is a crime?

How do they get the deer to cross at that yellow road sign?

**HAPPY  
BIRTHDAY**

### March/April Birthdays

Matthew Haynes 3/8

Jesse Harayda 4/1

