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# The University of Kansas Cancer Center joins the Brain Tumor Trials Collaborative

Clinicians from multiple institutions work together to devise clinical trials against brain tumors

**July 10, 2013 | Alissa Poh** 

The University of Kansas Cancer Center is the newest member of the Brain Tumor Trials Collaborative (BTTC), a 10-year-old national organization based in Houston, Tex.

"BTTC comprises clinicians from multiple institutions who work together to devise clinical trials investigating new drugs, or new combinations of existing drugs, against brain tumors," says Sarah Taylor, M.D., who is KU Cancer Center's sole neuro-oncologist, a professor of medicine at the University of Kansas Medical Center, and the driving force behind this new membership. "It's similar to cancer clinical trials cooperative groups such as the Southwest Oncology Group, except no federal funds or oversight are involved — which I think is unique."

Instead, since its genesis in 2003 — with Mark Gilbert, M.D., a neuro-oncologist at MD Anderson Cancer Center, at the helm — the BTTC has been funded entirely by Head for the Cure, a foundation established that same year to raise awareness of brain cancer. Head for the Cure is based in Kansas City, Mo., and led by Matt Anthony, global chairman of and a key figure behind VML's transformation from a small advertising agency to one that counts Kellogg's, Microsoft and the English Premier League among its clients.

# Personal odyssey

Matt Anthony and Mark Gilbert share a connection that spans over a decade. Chris Anthony, Matt's brother and Gilbert's patient, was diagnosed with glioblastoma — one of the deadliest brain tumors — and passed away at age 37. Chris's stoic struggle spurred his brother to decide that more funds were

needed for brain cancer research. Gilbert came up with the idea of BTTC.

In the fall of 2003, seven months after Chris's death, the Anthony family organized their first 5K run in Kansas City. Chris having been a keen runner, it was a fitting tribute. The goal was straightforward - raising seed money for BTTC.

Since then, Head for the Cure 5K-Metro KC has become not only a late August fixture, but one of the largest events of its kind. In 2007, the foundation itself was formed, with Matt Anthony as president, and 5K runs are now hosted in Kansas (Lawrence, Wichita), Missouri (Columbia, St. Louis) and Austin, Texas.

A record number of runners — 4,800 in all, with more than half of the 200 teams honoring someone affected by brain cancer — turned out at Corporate Woods in Overland Park, Kan., for the 2012 event. Since its founding, Head for the Cure has raised over \$1.8 million and enabled the expansion of BTTC from 16 member institutions to 24.

### Debunking brain tumors

There are over 120 types of brain tumors and, on average, about 88,000 cases diagnosed in the United States each year. Because fewer than 1 in 200,000 people are affected, these cancers are considered rare under the Rare Diseases Act of 2002. Correspondingly, research funds are in short supply.

In addition, "a general problem with brain tumors is that they're formed inside a box, so to speak," Taylor says. "If the tumor can't be removed, it will keep growing and overwhelm what's normally in the box. Screening procedures have made early detection possible for some cancers — like breast and colon — but we have nothing similar for brain tumors."

Taylor and Gilbert are longtime professional acquaintances, and she believes her efficiency in placing patients on clinical trials through the federally-funded Radiation Therapy Oncology Group helped garner her invitation to BTTC's annual meeting in February 2013, subsequently leading to KU Cancer Center's induction as the 24<sup>th</sup> member.

"We've always given solid care, but I never thought we were big enough to qualify for BTTC membership. Learning otherwise was a pleasant surprise. Getting NCI designation was a boost, and we have better financial support to join this collaborative now. It's expensive business, designing and implementing clinical trials — on average between \$8,000 to \$10,000 per patient," Taylor explains.

Currently, BTTC's focus is on glioblastoma — partly due to Chris Anthony's diagnosis, but mostly because this aggressive cancer is the main culprit in adults.

"It's a chance to try newer, targeted drugs on a disease that still has no home runs," Taylor says. She is

also carrying out a phase III trial that pits the immune system against glioblastoma. A patient's dendritic cells — messenger cells in the immune system — are used, along with a sample from each patient's glioblastoma, to create a personalized vaccine.

"The results, at the phase II level, look promising," she says, "but nothing's definite yet because historical data was used to compare outcomes — in other words, the two groups of patients weren't treated during the same time period."

## Hope and fresh options

Progress against brain cancer may seem glacial, especially to patients and their families, but it can be found nonetheless. Average survival for patients with glioblastoma has gone from just six weeks post-surgery to 14 months. Techniques like stereotactic radiosurgery — pinpointing the exact location of brain tumor cells, then aiming a precise dose of radiation at them — greatly reduce side effects for patients. Chemotherapy, once considered useless, is now standard. Two FDA-approved chemotherapy drugs, temozolomide and bevacizumab, have emerged in the last decade.

On the whole, though, brain tumors remain frustrating for patients and doctors alike. Collaboratives like BTTC apply the critical thinking skills of multiple experts toward tackling a seemingly intractable problem.

"If I come up with an idea for a clinical trial, the group can decide if it's worth pursuing," Taylor says.

"The need for collaboration is more pronounced with rarer cancers because individual centers can't see enough patients to complete clinical trials on their own. Also, more heads put together - no pun intended - mean better scrutiny of observations, quicker answers and wider acceptance of the data."

In the end, it comes down to what Taylor considers key: "I can offer my patients new options that I didn't think up," she says. "To me, BTTC is more than the power of clinical collaboration; it's about consistently trying to do what's best for patients."

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