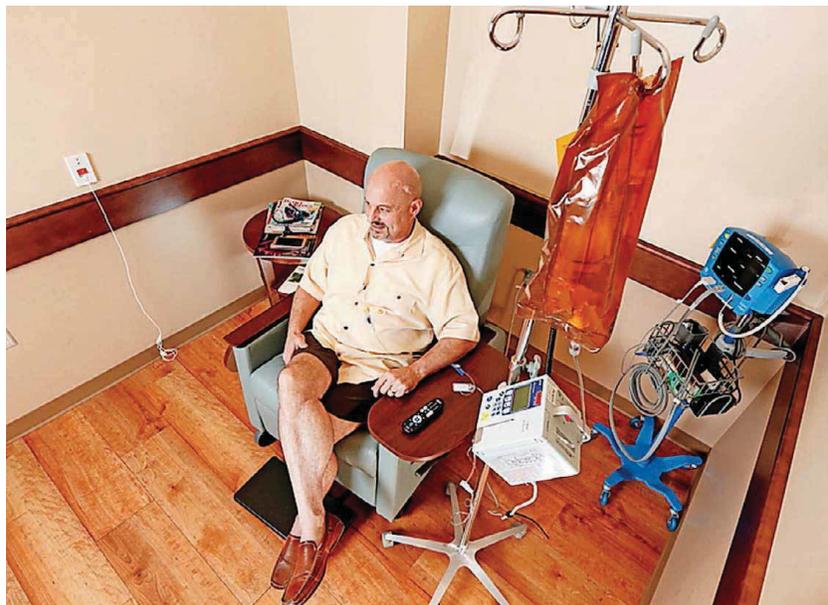




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Mike Schuster receives treatment for a glioblastoma at the Stephenson Cancer Center. [PHOTOS PROVIDED]

# Deal allows for wider trial of brain cancer treatment

BY JIM STAFFORD  
For The Oklahoman

The very word “glioblastoma” sounds menacing. It is.

Glioblastoma is an aggressive, deadly form of brain cancer. Victims rarely live beyond 18 months after diagnosis. Glioblastomas took the lives of Sens. John McCain and Ted Kennedy among the thousands of victims it claims every year.

That is why the licensing of an investigational drug called OKN-007 developed by the Oklahoma Medical Research Foundation (OMRF) by a company focused on development and commercialization of biopharmaceutical drugs has brought hope to glioblastoma patients.

Oblato Inc., the American subsidiary of a South Korean biopharma research and development company known as GtreeBNT, announced in October it had licensed OKN-007 from OMRF and would initiate clinical trials throughout the United States.

It was news of that promising transaction that brought me and Debbie Cox from the Oklahoma Center for the Advancement of Science and Technology (OCAST) to a small animal magnetic imaging laboratory at OMRF



Manu Nair



Rheel Towner

in early December. We were there to meet Rheel Towner, Ph.D., an OMRF scientist who is credited, along with Robert Floyd, Ph.D., with development of OKN-007.

OCAST funding programs have long supported Towner’s research that advanced OKN-007. OMRF’s glioblastoma project also has investment from iZE Inc. through the Oklahoma Seed Capital Fund.

Debbie and I wanted to know what differentiated OKN-007 from other cancer treatments that have not been effective in defeating glioblastoma.

Early tests showed that OKN-007 was effective

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Go to [Oklahoman.com](http://Oklahoman.com) to see a video about how a licensing deal has allowed for wider testing of an investigation drug developed by the Oklahoma Medical Research Foundation.



in halting cancers in laboratory animals, but Towner saw more promise if it was combined with a current cancer-fighting agent temozolomide, known as TMZ.

“When we combined OKN-007 with TMZ, we found it knocked down the TMZ-resistant cells,” Towner said. “We decided to try that in a preclinical model for glioblastoma and found it to be very effective. In fact, it was so effective more than 60 percent of the animals lost all their tumors.”

The FDA approved an initial clinical trial that took place at the Stephenson Cancer Center under direction of Dr. James Battiste, a neuro-oncologist. The trial coincided with the 2015 diagnosis of a glioblastoma in Norman resident Mike Schuster, who underwent treatment with OKN-007 in combination with TMZ.

Nearly three years later, Schuster is a thriving 53-year-old.

“OMRF has been fantastic,” Schuster said. “If anybody was unfortunate

enough to get cancer, I would go to the Stephenson Cancer Center and go through the treatment that the oncologists recommend.”

Now, the deal with Oblato is taking OKN-007 to a wider audience in a larger clinical trial. Oblato became interested in the drug through a connection it had with Manu Nair, OMRF’s vice president for Technology Ventures.

Nair credits Oklahoma’s “visionary” model of supporting groundbreaking research for keeping advances with OKN-007 on track.

“There is great research happening in the state of Oklahoma,” Nair said. “The ability of what we are wanting to do and can do at OMRF is dependent on the environment we are in. Institutions like OCAST and iZE and the support of the state are extremely important.”

Jim Stafford writes about Oklahoma innovation and research and development topics on behalf of the Oklahoma Center for the Advancement of Science & Technology (OCAST).

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