



## Daniel Von Hoff, M.D. Oncologist

**D**r. Daniel Von Hoff may never have become one of the nation's foremost oncologists if his last name didn't start with a "V." When he began his medical training in the 1970s, cancer was literally considered a dead end. So when the doctors were assigned clinical rotations alphabetically, by the time they got to Von Hoff, only the least desirable field remained: oncology. "But I found the [patients] so fantastic and tough. They were an inspiration," Von Hoff says. "So I was glad my name began with a 'V.' As they say, the last shall be first."

First, indeed. Von Hoff is chief scientific officer at Scottsdale Healthcare's Virginia G. Piper Cancer Center and physician-in-chief at Translational Genomics Research Institute (TGen) in Phoenix.

He has given the first patients in the world numerous cancer therapies that have dramatically increased survival. He has conducted national clinical trials with more than 200 new anti-cancer agents – more than any other researcher. In 2009, he was lead investigator on the first trials of a new drug that successfully treats advanced basal cell carcinoma – a type of skin cancer that is the most common cancer in the world and is usually treated by surgery. Von Hoff has "high hopes" the drug could treat other types of cancer including a common brain tumor in children.

Recently, he and his colleagues at TGen began using Horizon's new GENESIS and X-MAN technologies, which allow them to mutate a specific gene on a non-cancerous cell to create a cancerous cell that matches the mutation in a given patient's tumor. They can then test potential treatments on the cell pairs to see which one kills the cancer cell but not the normal cell.

He and his colleagues are also targeting support cells – normal body cells recruited by cancer cells to feed and shield the tumors from the immune system and drug treatments. They are also examining some tumors' voracious metabolism, looking for what Von Hoff calls an "Achilles heel" – a weakness present in cancer cells but not normal cells.

The goal? "To cure cancer," Von Hoff says. "But remember, cancer is 200 different diseases. I'm certain it can be cured, but you've got to cure it one cancer at a time."