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Doctoral student awarded American Heart Association fellowship

By Dan Bodene, contributing writer

How does someone go from V-8 engine manufacturing to stem-cell research? As quickly as possible, if you're Oakland University student Benjamin Buller.

Buller recently was awarded a prestigious American Heart Association fellowship for his research on stem-cell dynamics. He's a doctoral candidate now working under the direction of Michael Chopp, Ph.D., a distinguished professor of physics at OU and chair of neurological research at Henry Ford Hospital.

"The fellowship is to study a gene that I believe protects neurons from death after someone suffers a stroke," Buller said. "During a stroke, brain cells die. I'm looking for a gene that can predict or prevent this cell death."

"Ben's research is at the forefront of translational neuroscience research, with enormous therapeutic implications for stroke, neural injury and neurodegenerative disease," said Dr. Chopp. "His groundbreaking research may provide a means to protect brain cells from degeneration and death after a cerebral injury."

Buller was a senior majoring in Mechanical Engineering at Oakland when he indulged a passing interest in biology by taking a bioengineering special topics course taught by Barbara Oakley, Ph.D. Intrigued, Buller took another year of coursework to prepare to enter OU's doctoral program in Medical Physics.

But after receiving his bachelor's degree, he spent part of a year working at a Chrysler LLC engine plant in Detroit until his doctoral studies began. Returning to OU, he studied under Dr. Chopp, who suggested working in a molecular lab. Buller has been working on stem-cell research since 2006 and now spends most of his time at Henry Ford Hospital.

In January 2009, he applied for a Heart Association fellowship, but was rejected – although not completely. He reworked and resubmitted his application to the Heart Association. This time, he was successful in securing a fellowship, which includes a stipend and funds for research and travel.

Buller expects to complete his dissertation in December 2010. "I'm definitely committed to staying in research long-term," he said. "Physics is the study of all knowledge, so it's a good background for a lot of research."

SUMMARY

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