Local Youth May Hold Answers to Long Distance Space Flights

— Loreen Atkinson/special

Student engineers standing behind their bioreactor. Pictured (l-r) are: E.J. Szegedy, Joel Spencer, Harry Vaswani, Anthony Free.

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A group of local high school students are on a mission to unlock the secrets to long distance space travel. At the same time they may help in finding a cure for osteoporosis.

Their mission: To better-educate high school students through space-related biochemical research. So far, the Orange Park Christian Academy has earned $85,000 in grants to design, test and build a bioreactor. The bioreactor is a science experiment built by the students that they hope will one day go up in the space shuttle.

Science student Kelsi Yeakel says, "We would like to study how astronauts lose bone mass and use this knowledge to develop new research for osteoporosis down here on earth. The experiment will measure the effects of zero gravity, or weightlessness on the cells that make bones." O.P. Christian Academy is the first school in the State of Florida to receive a research grant from the Florida Space and Research Institute.

Tekna-Theos Inc., a company developed in 2001 by six students, with the help of, Mr. Simmons, a very special science teacher at Orange Park Christian Academy, means Children of God. Mr. Simmons has always loved science and has taught the kids to aim high and reach for their dreams. He created the company because he wanted to overcome people's skepticism toward non-public schools and wanted them to be able to work toward getting financial aid, so he helped them to become incorporated so that they could pursue grants. Simmons says, " We are trying our best to provide an excellent opportunity." Mr. Simmons allows students in his classes to choose, according to their interests, which area of the project they would like to work on. Some of the students prefer working as engineers; others work in the areas of cell biology, marketing. Once students graduate, they can serve on the Tekna-Theos Inc.'s Board of Directors.

Claire Piatt, one of the original six science students, says she remembers the company starting out with humble beginnings. "The bioreactor was just an idea back then. The whole idea was sparked by Kevin Simmons, who was our chemistry teacher at the time." This program has given Claire an interest in science. She is treasurer and secretary of Tekna-Theos Inc. and is a college student at St. River Community College.

In 2004, Tekna-Theos Inc. applied to NASA flight program for a 1.5 millions dollar grant to fund 2 space shuttle missions for their bioreactor. Money from previous grants has been used to (design and build a prototype bioreactor.)

More on the Way

Another surprise came to OP Christian Academy when, earlier this year, they learned that they are to receive $50,000 from the family of Lydia Nocar, who passed away earlier this year. She specifically wanted to money to go to Tekna-Theos Inc. for science and research. Mr. William Basford, attorney for the Nocar family, says that Lydia Nocar stated, "If NASA trusted the kids, then she trusted them."

Students Have Their Eyes On the Sky

Through Tekna-Theos Inc. other Ambitious students at OP Christian Academy are enrolled in a private pilot ground school. 10 students and 4 of their parents are taking Saturday classes to learn how to fly airplanes. Carl Yeakel, an adjunct instructor through FCCJ, is teaching this college level course to the students. They watch DVD's, take tests and will soon be able to go to Cecil Field to use the flight simulators. This past summer they got to fly over the school and take photos of OPCA and Orange Park. The students can become licensed once they turn 16 and have passed all of the necessary classroom and flight training. Student Micky Calderon says "The flight class is fun, and I hope to get a job like this in the Air Force." Danny English, a freshman, says he wants to get a better education and get into a better college.