

## **The Clay County Line**

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### **Christian Academy gets NASA grant**

*By Mary Maraghy, Clay County Line Staff Writer*

Six Orange Park Christian Academy students this summer will work with NASA engineers to build an experimental device the students designed to sail on a future space shuttle.

All thanks to an \$18,640 grant from the, Florida Space Grant Consortium, which is funded by NASA and supports Florida-based space research and education.

Science teacher Kevin Simmons said he thought getting the grant would be a long shot for the small private Christian school on Kingsley Avenue.

"I have seen so many PhDs labor over grants, so I wasn't too optimistic," Simmons said.

Still on the morning of April 30 — the day awards were to be announced — Simmons said he sent one of his best students, Kermina Vaswani, to check the consortium's Web site.

"It was just like, whoa," Vaswani said, recalling seeing the school listed among the winners.

It wasn't until May 13 that Simmons learned the size of the grant. He's still celebrating.

Students this summer will further develop and build a bioreactor at a subcontracted engineering lab at NASA's Marshall Space Flight Center in Huntsville Ala.

The students have designed a bioreactor that will be used as part of a bone-mass experiment. It will measure the effects of zero gravity, or weightlessness, on cells that make bones. Simmons said potential bone loss and muscle atrophy are deterrents to long-term space travel. He's hoping their work, which will use rat cells, will help find a solution. The data could also lead to a better understanding of osteoporosis, Simmons said.

The project was designed to expose the students to cell biology, engineering, marketing, writing grant proposals and careers in science and engineering.

Simmons formed a non-profit organization called Tekna-Theos Inc. — which is Greek for children of God. Through the non-profit, the school can accept tax-deductible financial donations from individuals and corporate sponsors. A few students are trying to raise about \$20,000 for the student engineers to carry through their project. Plus, the group has other future experiments they'd like to see fly on future shuttles. Claire Piatt, who graduated from the academy last year, serves on the board of directors.

"We may be a small group but we can still push the bar in science," she said.

The academy, with 272 students, is affiliated with Orange Park Assembly of God, where the Rev. Allan Wiggins is pastor. "I never thought it was possible. Then we had NASA calling the school," Wiggins said. "It blew my mind."

The complexity of the project also blows his mind.

"Everything Simmons tells me goes right over my head," Wiggins said zipping his fingers back through his hair. "I tell him, 'OK, just go ahead and do it."

To learn more about the space research project of Orange Park Christian Academy students, visit [Jacksonville.com](http://Jacksonville.com), keyword: Tekna.

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