Florida Poly Students Propose Pinpoint Delivery of Cancer Drugs

Florida Poly students, Holly Pafford and Christian O’Brien, developed a conceptual framework for the delivery of drugs that only target cancerous cells in people being treated for the disease. Their work may have the potential to lead to progress in the study of targeted delivery of treatment drugs.

Drug therapies for the treatment and sometimes cure of cancer have come a long way in the last 25 years. One of the remaining problems associated with drug therapies is that the drugs are delivered throughout the body and can have profound negative effects on body systems overall and on non-targeted body locations.

Holly and Christian propose using the shells of single celled animals called diatoms combined with specific nanoparticles, both of which can be harvested in a lab. If proven to be workable, not only would the approach significantly improve targeting of cancer cells but would also have the potential to significantly reduce the negative effects of treatment drugs on non-targeted parts of the body. Pictured above are Christian and Holly at the STEM Expo that showcased their research.

Florida Poly NSSE Survey Results

In spring 2015, our first year students were asked to participate in the National Survey of Student Engagement (NSSE). Students were asked to reflect on their participation in activities and programs that promote their learning and personal development. The results are compared to other first year students across the U.S. The results show that Florida Poly students get 61 pages of assigned writing compared to students at peer institutions who get 46 pages of assigned writing (see chart to left). The survey also showed that collaborative learning (hands-on learning) at Florida Poly is significantly higher than at other schools. Lastly, the results related to campus environment including both quality of interactions with faculty and staff, and academic support showed Florida Poly to be significantly higher than other schools across the nation. (Click here to view the report.)

Florida Statutory Requirements

Section 1004.345, Florida Statutes require Florida Poly to meet specific criteria by December 31, 2016. Florida Poly is on track to meet the requirements (see chart to right). The 2015 fall enrollment of 924 (76% retention rate) is on target to meet the student enrollment requirement of 1244 FTE by December 31, 2016. We have submitted our Application for Candidacy to the Southern Association of Colleges and Schools Commission on Colleges. The Commission has scheduled an official onsite visit for March 7-10, 2016. (Click here to view the Florida Statute.)