

November 2007

Dear Faculty and Staff:

Well, we are in the home stretch for the semester, with Thanksgiving and the Christmas holidays right around the corner. We have a sold out football game against the University of Alabama this weekend, and our men's and women's basketball teams look like they are in for great seasons. If you are a fan of college sports, these weekends are exciting with lots of opportunities to see our Bulldog teams play.

This has been a busy month for everyone, and I have several faculty and staff highlights to pass on:

- * Ms. Robyn Remotigue, Assistant Director of Sponsored Programs Administration (SPA), has been appointed as the Chair of the Pre-Award Committee for the National Council of University Research Administrators (NCURA).
- * Mississippi State University has been selected as a beta test site for a new portal for the National Science Foundation to be called "research.gov". MSU was one of only 50 universities selected by NSF to pilot the new research grant submission interface.
- * Mr. Victor Branch, Manager of Education, Training, and Digital Tools at the CAVS Extension Center in Canton was recognized with a State Energy and Water Management Award for Outstanding Achievement in Energy Efficiency and Management. Other members of the team included Ms. Tracie Crosswhite and Mr. Travis Hill of CAVS Extension, Ms. Patricia Rucker of Entergy, Mr. Warren Bagley of Siemens, Mr. Larry Dalton of the Bagley College of Engineering, and MSU Facilities.
- * Dr. Nancy Hargrove (English) won the 2007 South Atlantic Review Essay Prize awarded by the South Atlantic Modern Language Association for the best essay published in the journal in 2006 entitled "T. S. Eliot's Year Abroad, 1910-1911: The Visual Arts".

In my August 2007 newsletter, I gave research figures for new grants and contracts at MSU for the last fiscal year. This past month, the IHL published the total research numbers for all of the other universities, and Mississippi State remains the top research university in the state by a large margin:

Alcorn State University- \$22,276,206
Delta State University- \$9,446,711
Jackson State University- \$66,732,582
Mississippi State University - \$186,509,706
Mississippi University for Women - \$7,586,371
Mississippi Valley State University - \$8,914,390
University of Mississippi (Oxford Campus) - \$77,939,971
University of Mississippi (Medical Center) - \$50,033,002

University of Southern Mississippi - \$98,616,597

The total grants and contracts for the Mississippi universities was \$528,055,536 – which is up significantly over the previous year's total of \$464,487,887 (FY 2006).

This month, I would like to spend some time discussing our programs on Intellectual Property and Technology Transfer. As you may have guessed, I enjoy college sports, and probably spend too much time watching ESPN. One of the commercials, which airs a lot during college football games, commemorates the development of Gatorade during the mid-1960's when University of Florida football players were having problems staying hydrated. Four scientists at the University of Florida then developed a beverage that contained needed carbohydrates and electrolytes to assist athletes when playing football outside in the hot sun. This new drink mixture was manufactured and marketed as Gatorade.

Universities have been involved in applied research for decades, but what really stands out about Gatorade is that the intellectual property developed by the research team at the University of Florida has provided millions of dollars in revenue back to the university. Inventions like Gatorade represent huge “wins” in university derived intellectual property, and have become a major source of discretionary income for all major research universities.

Royalty income and the protection of intellectual property is big business for universities. For example, in 2005, New York University (NYU) generated \$133M in royalty income, which was second behind the \$585M generated by Emory University. Generally, this royalty income is not due to hundreds of different inventions, but is largely due to one or two big-ticket intellectual property successes. While the millions of dollars in royalty revenues come from a variety of different technologies, generally the big financial success stories are due to the development of new pharmaceuticals or software tools. At NYU, a significant amount of this income was from one successful drug (Remicide). Other notable university related IP success stories include Google (Stanford University), Lycos (Carnegie Mellon) and Emtriva (Emory University).

So, what will be the next Gatorade or Google? Clearly, no one knows, so universities have become much more aggressive in recent years at ensuring that we not only protect our intellectual property, but that we pursue patents for university based research whenever possible. This is often limited by the amount of money available to pursue patents (which can cost upwards of \$10,000 - \$15,000 or more), which has been a significant limitation at Mississippi State University. In order to address this, ORED is continuing to provide resources to the Office of Technology Commercialization in order to build a reasonable central pool of funds to use to pursue patents.

Mississippi State has done a very good job in this area given our limited resources, and we are seeing the number of patent applications and invention disclosures (the steps prior to a patent) increase significantly - a necessary first step to increasing our royalty income. Currently, we generate about \$450,000 annually from MSU licensing, with the majority

(over 60%) of this coming from royalties related to turf grass. A good rule of thumb is that we should be generating about 1% of our annual grants and contracts amount in royalty income – which means that we should be at about \$1.8M annually in licensing revenue. We are putting the infrastructure into place that will allow us to continue to grow our intellectual property portfolio, but clearly we still have some room to grow. I anticipate that over the next several years we will continue to see increases in royalty income due to inventions generated by our faculty, staff, and students.

At Mississippi State, the Office of Technology Commercialization (<http://www.otc.msstate.edu/>) provides assistance to faculty and staff members in handling intellectual property issues related to research conducted at Mississippi State University. OTC can assist with conducting a market analysis for a technology, can assist in filing for patents, and works with faculty and staff small businesses. If you have any questions or need help with any intellectual property questions, please do not hesitate to contact Chuck Rivenburgh, Director of OTC (ctr@otc.msstate.edu).

So, when you are walking across campus on a beautiful fall day, wondering if your new idea should be patented or protected – give us a call – because you never know what will be the next Gatorade or Google, or even better – Bully-Ade.

Happy Thanksgiving! Beat Bama!

Kirk.