

**A New Approach to Technology Transfer at LSU:  
Partnerships for Progress in Leveraging Innovation**

**REPORT OF THE  
LSU PRESIDENT'S COMMITTEE ON TECHNOLOGY TRANSFER**

**December 20, 2013**

## **LSU President's Committee on Technology Transfer (PCTT)**

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### **Summary of Recommendations**

- **Adopt a new, shared mission statement which emphasizes high-quality faculty service and effective, efficient commercialization practices for public benefit and economic impact.**
- **Establish a new, shared-services partnership with the LSU System Research and Technology Foundation for centralized administrative support functions, allowing each campus the ability to maintain and enhance its individual technology transfer operations.**
- **Launch a new, permanent, proof-of-concept program to support commercialization of inventions, the LSU LIFT Fund (*Leveraging Innovation for Technology Transfer*).**
- **Revise pertinent regulations and policies to streamline and clarify the management of intellectual property through technology transfer at LSU.**
- **Maximize the strengths of each campus technology transfer office, the Research and Technology Foundation and the University through a novel partnership which will make progress in leveraging innovation at every level for all members of the LSU community.**

## Introduction

LSU affirms its commitment to education, research, service, and economic development by creating, disseminating and advancing knowledge in an open and entrepreneurial environment. In the course of research by members of the multiple LSU campuses, inventions may arise. The commercialization of these inventions through the process called "technology transfer" further enhances LSU's mission and increases its economic impact. A primary objective of technology transfer at LSU, in common practice with universities nationwide, is to move inventions from the laboratory to the market for public use and benefit through partnerships with new and existing businesses.

Over the past several years, much attention has been paid to how LSU campuses manage technology transfer and commercialization activities. Several of the five research campuses within the LSU community have staff assigned full time to these activities; others do not. Nationally-recognized universities which excel in partnering with companies to commercialize inventions through technology transfer have expert professional staff who are dedicated full time to technology transfer, who work in close and regular contact with faculty and who have the autonomy and flexibility necessary to respond quickly to business needs. While these best-practice principles are implemented in various organizational models, all are designed to best serve the needs of the faculty and the institution, and all serve as the basis for this report.

Earlier this year, the LSU Transition Advisory Team (TAT) identified technology transfer as a key component in reshaping LSU's research enterprise. The TAT final report called for a new model of technology transfer to spur and support innovation on each campus and to provide a high level of service to faculty, business partners, and the community. In response to the TAT report, President Alexander formed a President's Committee on Technology Transfer (PCTT) in September to evaluate the pertinent recommendations and to devise a new, comprehensive approach to technology transfer across the research campuses of LSU.

The President's specific charge to the PCTT was to:

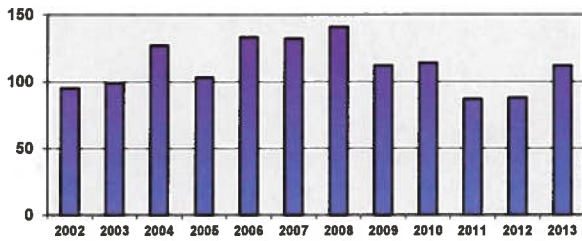
1. Clearly define a mission for technology transfer across all research components of LSU which promotes, supports and prioritizes innovation through LSU's research and related activities.
2. Develop strategies to more closely integrate technology transfer activities through collaboration between the LSU System Research & Technology Foundation (RTF) and LSU campuses
3. Determine how best to establish and implement an innovation investment fund to provide small grants to faculty for proof-of-principle in support of further commercialization activities.
4. Determine what changes are needed in LSU's bylaws and regulations to enhance technology transfer.
5. Begin developing specific mechanisms and plans to enhance technology transfer throughout LSU, to build an adequate support structure for potential commercial development of inventions.

The PCTT met multiple times over the past several months to evaluate data and previous studies and to make specific recommendations for each item in the President's charge. The PCTT recommends a new direction for technology transfer at LSU which combines the best of multiple approaches, leveraging existing expertise and resources into a new hybrid model for managing technology transfer. This collaborative approach to commercialization will advance innovation, provide excellent faculty service, be responsive to the needs of business and actively support LSU's critical role in helping to build an innovation economy in Louisiana.

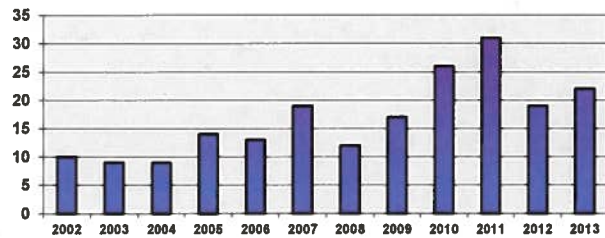
**Technology Transfer Metrics**

As this new approach to technology transfer is launched at LSU, it is important to assess recent activity on several key technology transfer metrics. These data will establish a baseline for evaluating the ongoing impact and success of this new partnership model for commercialization across all campuses of LSU. The six tables below illustrate annual total activity on each measure by all campuses at LSU over the past decade. It is critical to note that these technology transfer activities are all *outputs* of the research enterprise, and are largely dependent upon the success of the faculty in acquiring critical *inputs* of funding for basic and applied research.

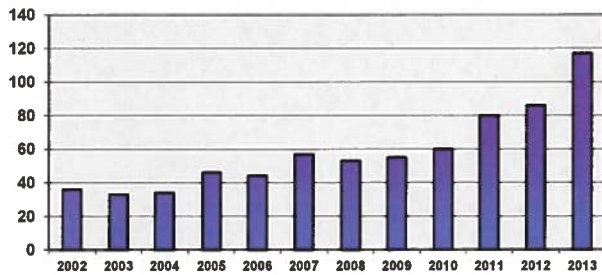
**Invention Disclosures**



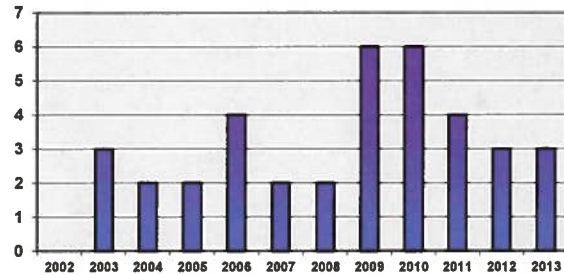
**Licenses & Options Signed**



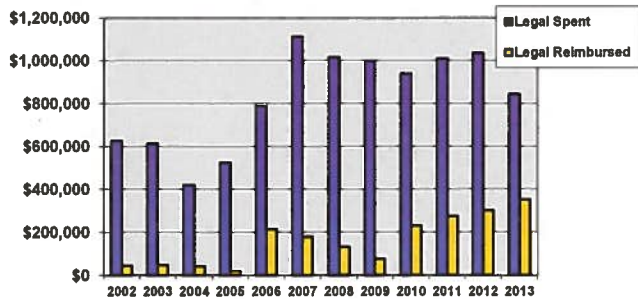
**Licenses Producing Income**



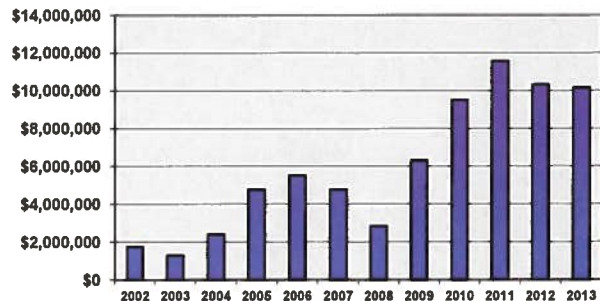
**Start-ups Formed**



**External Legal Fees**



**Licensing Income**



### **A New Shared Mission Statement**

*Technology transfer offices at LSU campuses advance innovation by serving the faculty, supporting the research enterprise, and partnering with entrepreneurs and businesses to commercialize inventions that enhance the economy and benefit the public.*

### **A New Partnership with the LSU System Research & Technology Foundation**

The LSU System Research & Technology Foundation (RTF) was founded in 2002. One of its three main purposes, never before fully implemented, is to “coordinate and manage the transfer of intellectual property and other intangible property and rights derived from such research and technology to the marketplace.” The PCTT recommends a new approach to technology transfer at LSU in close partnership with the RTF to maximize the benefits of a foundation structure while maintaining an independent technology transfer office under the direction and control of each senior campus leader. This is a novel approach to the management of technology transfer at a public university and represents a hybrid model which draws upon the strengths of both the foundation and the university.

In order to ensure the highest level of faculty service and optimize technology transfer at LSU, it is crucial that each research campus has a technology transfer office on site and easily accessible. The process of stimulating new invention disclosure and expanding faculty interest in commercialization can only occur when the technology transfer officer is in close and regular contact with all faculty. However, many administrative aspects of the technology transfer process can be centralized for better efficiency, coordinating effort and leveraging expertise to optimize the operations of each campus technology transfer office.

The PCTT has developed a shared-services model in which the RTF will provide certain common technology transfer administrative functions while each research campus of LSU will maintain its own staff, budget, and decision-making autonomy. Under a one year Memorandum Of Understanding (MOU) between the RTF and each campus, expenses for these centralized services will be shared according to a formula based upon each campus’ relative proportion of LSU’s total annual research expenditures, along with a contribution by the LSU Office of the President for year one of this new hybrid model. After the first year of operation, the PCTT expects that the campus expense allocation in the MOU will be adjusted based upon actual accrued expenditures and other factors. The projected costs of this new collaborative model represent reasonable estimates that will offset legal and other expenses currently incurred by each campus in its technology transfer operations.

As a part of the partnership, the RTF will provide regular reporting on various technology transfer activities and metrics to the President, the LSU Board of Supervisors, and to each campus’s technology transfer office; the timing, content and structure of each level of reporting will be by mutual agreement. The RTF will consult with and receive approval from each campus’s technology transfer office before taking action on matters that involve that campus, and will work in close consultation with each campus to support the individual needs of that campus. Further, the RTF will receive no compensation for its services to LSU regarding intellectual property matters except that which is specified in the MOU.

Under this collaborative model, the RTF will perform the following functions on behalf of the research campuses:

- Hire a database administrator to manage the relational database already shared by the campus tech transfer offices, to establish standard guidelines for data entry and management.
- Assume all costs associated with the ongoing use of the database.

- Implement a license monitoring program, including compliance and fee collections.
- Retain legal counsel or other external advisors, upon request of a campus, for invention assessment, patent prosecution or licensing negotiation matters and assume all costs related to these services. The legal counsel may be hired in-house by the RTF or may be retained externally on a case-by-case basis, as mutually agreed upon by the RTF and all LSU parties.
- Provide patentability and marketability evaluation of any intellectual property, and identify potential licensees, as requested by each campus on a case by case basis.
- Host a website featuring all LSU technologies available for licensing from all campuses.
- Provide training and resources for staff professional development and faculty enhancement.

Below is the estimated Year One budget for the centralized technology transfer functions of the RTF.

In-House Attorney Salary & Benefits	\$190,000
Database Administrator Salary & Benefits	\$93,000
Legal	\$470,000
Disclosure Analysis Reports	\$80,000
Total Direct Cost	\$833,000
RTF Indirect Cost (20%)	\$167,000
Total Cost	\$1,000,000

The LSU Office of the President will provide 20% of the funding for the Year One budget above. The remainder will be divided among the five research campuses according to a five year rolling average of each campus' relative share of the total LSU research and development expenditures reported annually to the National Science Foundation (NSF). The RTF will also seek additional funding to help offset the startup and initial years of the centralized operations.

The Year One budget will be divided as follows:

LSU Office of the President	20.00%	\$200,000
LSU A&M	33.21%	\$332,061
Ag Center	15.45%	\$154,530
Pennington	8.80%	\$87,960
HSC-NO	17.62%	\$176,229
HSC-S	4.92%	\$49,219

**A New Proof-of-Concept Program through a Permanent Innovation Investment Fund:**  
**LSU LIFT– Leveraging Innovation For Technology Transfer**

The PCTT recommends that LSU establish a new, permanent, innovation investment fund to provide its entrepreneurial and creative faculty with small “proof of concept” grants to support further commercialization of inventions. This new funding initiative, ***LSU LIFT (Leveraging Innovation For Technology Transfer)***, will help move LSU inventions farther up the technology readiness ladder, advancing innovation towards application by helping validate commercial potential.

Most traditional sources of funding sustain only basic research; however, many discoveries require significant additional development to prove the invention has enough market potential to attract commercial partners. Funding for this type of research is difficult to obtain from either government or private sources, leaving many promising inventions languishing in a funding gap often referred to as “the valley of death.” The LSU LIFT grants will help faculty fill this critical gap in the critical funding continuum from discovery to commerce, establish data on commercial feasibility, and thus reduce the risk for companies interested in licensing the invention.

The LSU LIFT proof-of-concept program will be modeled after similar programs at leading research universities. The grants are expected to be awarded twice a year, on a competitive basis, in amounts up to \$50,000. The LSU LIFT grants will be time-limited and performance-based and for applied rather than basic research. An advisory panel, comprised of faculty, independent external experts and business leaders who serve on the Board of Directors of the RTF, will recommend awards after evaluation of the proposals. Upon approval of the LSU LIFT Investment Fund by the President and LSU Board of Supervisors, specific details for implementation of the grant program will be developed in close consultation with faculty researchers, the RTF, and campus research and technology transfer offices.

The new and permanent LSU LIFT Innovation Investment Fund will be sustained through a portion of revenues from past and future technology licensing agreements. Both federal law and LSU regulations require licensing income from inventions be used to further support the research enterprise; securing a portion of such technology transfer licensing income in the LSU LIFT Fund will ensure that revenues from inventions are continually reinvested in new innovation opportunities.

Under current regulations, the LSU Office of the President receives ten percent (10%) of all Distributable Royalties, as defined in Chapter VII of the Regulations of the LSU Board of Supervisors. The PCTT recommends that this allocation be split in half, retaining five percent (5%) in the LSU Office of the President and dedicating five percent (5%) of all future license income to the LSU LIFT Fund, to ensure ongoing financial support for much needed proof of concept projects for faculty from any LSU campus.

The PCTT urges LSU President Alexander to launch this new, permanent innovation investment fund for proof-of-concept activities, ***LSU LIFT (Leveraging Innovation For Technology Transfer)***, with at least ***\$1 million*** as a signal of LSU’s strong commitment to investing in its researchers and advancing discoveries to benefit the public.

**Proposed Policy Revisions**

**LSU Board of Supervisors Regulations, Chapter VII and PM-16 and PM-64**

In developing the proposed revisions to various LSU policies related to technology transfer, the PCTT recognized that the multiple regulations and presidential memoranda pertaining to the management of intellectual property were developed at various times, leading to misunderstanding and confusion

This amended Chapter VII of the Regulations consolidates all those documents into a single policy regulation while preserving the intent and integrity of the earlier related documents. In particular, PM-16 (effective 3.7.95) and PM-64 (effective 1.24.97) are eliminated in their entirety, with the pertinent sections and procedural matters incorporated into one place in the proposed revised Chapter VII.

In drafting the revised Chapter VII, great care has been taken to avoid changing any substantive rules affecting the rights of faculty and staff members who create LSU Intellectual Property. These proposed revisions change certain order and structure, and incorporate key aspects of the two PMs, to ensure the policy is easier to follow and understand, but make no substantive changes to definitions, intent or rights of inventors.

Two versions of the proposed new Chapter VII are attached. Attachment One is an annotated version which clearly identifies and explains any changes. Attachment Two is the clean document in its new form.

The PCTT recommends these proposed policy revisions as a way to streamline and clarify the framework for technology transfer at LSU for both inventors and external commercialization partners.

**Conclusion**

The LSU President's Committee on Technology Transfer believes its proposed new model for technology transfer at LSU will strengthen service to the faculty, measurably increase important activities and streamline interactions with business. Specific mechanisms and plans for action to enhance technology transfer across LSU will be determined upon approval of this plan by the President, Board and campus leaders. This new partnership with the Research & Technology Foundation will centralize certain administrative functions and expand both support and resources for each campus technology transfer offices.

By maximizing the strengths of each campus, of the entire university and of the foundation, this new hybrid model of technology transfer at LSU builds a strong partnership for making tremendous progress in leveraging innovation for economic impact and public benefit.