

About UTRF

The UTRF Office of Technology Transfer moves inventions from the lab to the market, turns ideas into products, creates new industry partnerships and starts new companies that grow new jobs.

Visit our new website: utrf.tennessee.edu/techtransfer

High-Tech Startup Companies Resulting from UT Technology More Than Double

Responding to the challenge from national and state leaders to increase and encourage more innovation, the University of Tennessee helped establish nine startup companies based on technology developed by UT faculty over the last fiscal year, more than doubling the total from a year ago.

The companies licensed technology from the University through the UT Research Foundation (UTRF), the not-for-profit organization responsible for commercializing and licensing technology discovered by faculty across the University of Tennessee System. Nine high-tech companies were created in the fiscal year ending June 30 while four were started in FY11.

From 1999 to 2011, UTRF spun out a total of 32 companies based on UT intellectual property, averaging two to four companies a year for the past

five years. Of those companies, 15 are still in business and four companies were acquired. These 19 companies illustrate a favorable comparison to statistics from the Kauffman Foundation showing fewer than 50 percent of startups survive five years.

The increase is the result of more aggressive and ambitious goals set for UTRF.

"Part of the mission of the University of Tennessee is to help drive the economic development of our state. By bringing more technology to the marketplace, the University is answering the charge from Gov. Bill Haslam and President Obama to reward innovation and entrepreneurship while helping create new high-quality jobs in high-tech fields," UT System President Joe DiPietro said.

"Six of the nine new companies

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UTRF Activity

*2012 Fiscal Year Totals
(7/1/11 - 6/31/12)*

Disclosures.....	144
U.S. Patents Filed.....	49
U.S. Patents Issued.....	23
Licenses & Options.....	22
Startups.....	9
Licensing Revenue.....	\$1,403,401*
	*Unaudited total

Upcoming Events

Vol Court: The Business Model Hypothesis Part 1: Business Model Canvas - 5:15 p.m. - 6:15 p.m., Oct. 2, 2012, Haslam Business Building, Room 201.

Anatomy of a License Agreement - 11:30 a.m. - 1:30 p.m., Oct. 4, 2012, Min Kao Engineering Building, Room 435.

Vol Court: The Business Model Hypothesis Part 2 - 5:15 p.m. - 6:15 p.m., Oct. 9, 2012, Haslam Business Building, Room 201.

Start-Up Entity Types - 11:30 a.m. - 1:30 p.m., Oct. 11, 2012, Min Kao Engineering Building, Room 435.

Patent Basics - 12:00 p.m. - 1:00 p.m., Date TBD (November), 910 Madison, Room 502 (UTHSC).

Fall Entrepreneurial Workshop Series Begins

Last Thursday the UT Research Foundation, in partnership with the Anderson Center for Entrepreneurship and Innovation, hosted “An Intellectual Property Primer”, the first of seven entrepreneurial workshops to be offered this fall.

The series will focus on legal and business information and the skill sets needed to launch and grow successful technology-based companies.

The workshops are free of charge and open to UT faculty and graduate students.

When: Thursdays from 11:30 a.m. – 1:30 p.m., beginning September 20 and ending November 1

Where: Min Kao Engineering Building, Room 435

Cost: Free (lunch is included)

9/27/12 Impact of Commercialization on Research

Speaker: Michael Zemel, Chief Scientific Officer, NuSirt

Dr. Zemel is a former UT professor that started a new company (which launched their first products last month) and has recently gone to work for the company full-time. He will tell the story of his company evolution from his researcher perspective, highlighting both the things he

did right and the things he wish he had done differently.

10/4/12 Anatomy of a License Agreement

Speaker: David Washburn, MBA, CLP, Vice President, University of Tennessee Research Foundation

In this discussion, Dave will identify the basic terms of a university technology license agreement and the foundation for inclusion of those terms and conditions. You’ll gain an understanding of the relative importance of each term, including which might be negotiable and non-negotiable and take away some basic strategies to mitigate concerns.

10/11/12 Start-Up Entity Types

Speaker: Lynn Youngs, Executive Director, Anderson Center for Entrepreneurship and Innovation

Lynn will give an overview of the different types of companies that can be formed and the implications of each.

10/18/12 The Wind Up and the Pitch

Speaker: Shawn Carson, Tech2020
Building a growth company will require you to be able to tell your story in clean and concise manner to investors. In this presentation,

our speaker will discuss how to craft an effective story and then utilize tools like slides to enhance the story. The presentation will include the 10 essential topics to cover in a strong company pitch and there are several fun examples of what NOT to do.

10/25/12 The Capital Continuum

Speaker: Ken Woody, Partner, Innova Memphis

Ken will provide an overview of the venture capital business, criteria for investment, importance of relationships, how deals are structured and what investors aim to get in exchange for their money. This is an important session for anyone wanting to take on venture capital to fund their business.

11/1/12 How to Pursue SBIR/STTR Funding

Speaker: Chuck Witkowski, Chief Executive Officer, Hubble Telemedical, Inc.

The Federal Government invests roughly \$2.5 billion per year in SBIR/STTR Phase I & II funding and is awarded annually by the eleven participating federal agencies. Chuck successfully started a business using SBIR funding, and in this session, you’ll learn how to identify opportunities and structure winning proposals that increase the probability of being awarded.



UTRF Thanks Dr. Hickman

Mr. Waymon Hickman served as Chair of the Board of UTRF through its reorganization and restructure. He retired as Board Chair in June of 2012. Mr. Hickman is from Columbia, TN and has served as a member of the UT Board

of Trustees. His leadership and guidance led UTRF through this major change. Our thanks to him for his distinguished service. Dick Gourley, Interim President of UTRF, presented this plaque to him on August 28, 2012.

Startups More Than Double (continued)

are related to innovations in health-care, and their products will further help our state by improving surgical procedures, prevention, rehabilitation and overall quality of life of our citizens," said David Millhorn, UT executive vice president and vice president for research and economic development.

UTRF works with faculty in Knoxville, Chattanooga and Martin; the Health Science Center based in Memphis and the statewide Institute of Agriculture. UTRF helps faculty and the University protect inventions and navigate the process of transferring ideas to industry through licensing agreements. In the right situation and often after many years of research and development, UTRF may encourage a researcher to start a new company to commercialize the technology.

In addition to nine new startup licenses being executed, UTRF received 141 new invention disclosures in 2012, which is a record high, up from 87 in 2011. An invention disclosure is a confidential document that a university inventor submits to UTRF that provides a comprehensive description of an invention.

"Technology commercialization is very challenging, and it's hard to predict what is going to stick, but the more things we can review and

try, the better our results will be overall," Millhorn said. "An increased number of inventions will result in an increased number of opportunities to commercialize."

Among the companies spun out over the past 15 years, the most successful include Memphis-based GTx, a pharmaceutical company focused on developing small molecules that modulate the effects of estrogens and androgens. GTx, co-founded in 1997 by UTHSC professor of urology Mitch Steiner, employs more than 100 people in high-paying jobs and has raised more than \$300 million in venture capital to fund its operations.

Knoxville-based NuSirt Sciences Inc., founded in 2007 by UT Knoxville Professor Emeritus of Nutrition Michael Zemel, sells products to reduce metabolic health risks. The company recently released a weight-loss supplement that is activated through physical exercise. NuSirt received early mentorship from Tech 2020, a Knoxville-based company that helps accelerate the development of high-growth companies. NuSirt currently has eight people on its payroll, but that number is expected to increase as new products are released.

The nine new business startups facilitated by UTRF in the fiscal year ended June 30, 2012 are:

- **Entac Inc.** – a Memphis firm developing a medical device to monitor and predict post-operative ileus after abdominal surgery.

- **Genera Energy Inc.** – a Vonore firm specializing in integrated biomass supply chain solutions. Genera Energy Inc. was spun out of Genera Energy LLC, a wholly-owned subsidiary of UTRF.

- **HandMinder Inc.** – a Memphis startup developing a portable medical rehabilitation device to recover finger/hand function in stroke patients.

- **Infusense Inc.** – a Memphis firm developing an automated platform for administration of the surgical anesthetic propofol.

- **Nanophthalmics Inc.** – a Memphis firm focused on developing surgical tools that incorporate micro-fabricated materials to improve performance

- **Raphael Biotech Inc.** – a Memphis company developing new drugs in oncology.

- **SimCenter Enterprises Inc.** – a Chattanooga-based company focused on computational modeling and engineering.

- **Skimtek Inc.** – a Knoxville company creating sediment basin dewatering systems.

- **Solex** – a Knoxville company looking to utilize peptide imaging agents to assist physicians in detecting amyloidosis.

For more information about UTRF, visit <http://utrff.tennessee.edu>

UTRF Staff Directory

Dick Gourley, PharmD - Interim President

Knoxville Office

Dave Washburn - Vice President

Nghia Chiem, Ph.D. - Licensing Associate

Joy Fisher - Director of Start-Ups

Kimberly Hood - Business Incubator Coordinator

Maha Krishnamurthy, Ph.D. - Licensing Associate

Samantha Jeffers - Business Manager

Patrick Reynolds, Ph.D. - Licensing Associate

Mary Ann Warwick Russell, J.D. - Staff Attorney

Jeanie Snider - Office Manager

Memphis Office

Richard Magid, Ph.D. - Vice President

Lakita Cavin, J.D., Ph.D. - Staff Attorney, Licensing Associate

Janet Ralbovsky, Ph.D. - Licensing Associate

Tinieka Triplett - Sr. Administrative Services Assistant

UTRF Annual Maturation Funding Announcement

The University of Tennessee Research Foundation is announcing a call for submissions for the sixth annual UTRF Maturation Funding program. Proposals are due into your Research Office (through TERA PAMS) by close of business October 16, 2012. The program helps UT researchers further develop technologies that have potential for commercial success. Up to \$15,000 in direct costs will be awarded to the highest ranking proposals.

Guidelines

- Open to all UT researchers, faculty, staff and students at all campuses and institutes.
- Projects must be related to an existing UT invention/creation disclosure, OR a proposal can be accompanied by a new UT invention/creation

disclosure.

- All proposals should generate new data that validate the technology and increase its commercial readiness. They should clearly describe how the expected results will increase the commercial opportunities for the technology.
- Proposals that only generate basic research results should not be submitted.
- Identification of potential commercial partners for collaboration on this proposal is encouraged.

Proposal Requirements

- Proposals should describe the technology and its existing data, plan of work, expected results, budget, and an assessment of how the expected results will increase the commercial opportunities for the

technology.

- Funds should be directed to labor, materials, and services necessary to achieve the proposed deliverable(s). Indirect costs are not allowed.
- Funds may not be used for PI salary, but may be used for student, post doc, or technical staff support.
- Proposal should not exceed 3 pages, excluding references, which may be included as a 1-page appendix. Therefore, the proposal plus the appendix must not exceed 4 pages.
- Proposal should be received by the campus-specific research office (through TERA PAMS) by close of business October 16, 2012.

Judging Criteria

- Demonstration of a path for commercial development
- Market potential
- Stage of development

For more information, please contact one of the following:

David Washburn for all campuses except UTHSC, at davewash@utk.edu or 865-974-1882

Janet Ralbovsky for UTHSC, at jralbovs@uthsc.edu or 901-448-1146

Deadlines & Schedule

Proposal receipt by your Research Office	Oct. 16, 2012 at 5 p.m.
Awards announced	Nov. 16, 2012
Project start date	Dec. 10, 2012
Project completion date	Sept. 13, 2013
Final report due	October 11, 2013

UTRF accepting applications for its Commercialization Analyst Internship Program at the Knoxville office

The University of Tennessee Research Foundation is continuing to grow its Commercialization Analyst Internship Program and is currently accepting applications for 2013 internships. Commercialization analysts assist UTRF licensing associates in the evaluation, marketing and licensing of cutting edge technology developed at the University.

The intensive two-week training program provided by UTRF to suc-

cessful applicants will assist them in a basic developing an understanding of intellectual property law, market and industry analysis, and licensing methods and techniques.

Interns will get valuable experience in highly marketable skills through screening technologies, participating in inventor interviews, creating market and industry analysis reports, researching prior art and assisting in ad-hoc projects in marketing and licensing.

A total of four paid commercialization analyst internships are available to UT MBA, law, or other interested graduated students. Internships require 35 hours per week in the summer and 10 hours per week during the following two semesters. The next internship class begins training in May 2013.

Interested students should submit a CV, cover letter and references to utrff@tennessee.edu.

UT Vol Court Offers Entrepreneurial Workshops and Cash Prize

KNOXVILLE — Do you have an idea for starting a business but aren't sure how to start?

The Anderson Center for Entrepreneurship and Innovation at the University of Tennessee, Knoxville, College of Business Administration will offer the opportunity for students, faculty and the community to learn from entrepreneurs, venture capitalists, and business experts about getting a company started. The agenda has been revamped to utilize the latest in entrepreneurial education emerging from Silicon Valley.

The Vol Court fall 2012 session begins September 25 and runs through November 6. Workshop presenters are from various organizations throughout Tennessee, and all have experience with entrepreneurial companies.

The seven-part series will be held

Tuesdays at 5:15 p.m. in Room 201 of the Haslam Business Building.

The November 13 session includes a pitch competition in which the top presenting individual or team will win \$1,000, and the second place team will win \$500. Students attending Vol Court will have the opportunity to better prepare themselves for the upcoming campus-wide Undergraduate Business Plan Competition.

Session topics are:

- **Sep 25:** Customer Discovery and Validation Model; Entrepreneur Speaker Panel
- **Oct. 2:** The Business Model Hypothesis Part 1: Business Model Canvas
- **Oct. 9:** The Business Model Hypothesis Part 2: Making Money; Resource Assessment
- **Oct. 16:** Testing Your Hypothesis With Customers



• **Oct. 23:** Finding Investors at the Right Time

- **Oct. 30:** Preparing the Pitch
- **Nov. 6:** Pitch Competition

Vol Court is sponsored by the UT Federal Credit Union, the UT Research Foundation and Pershing Yoakley and Associates.

To learn more about the presenters, sponsors, and each session, visit <https://www.facebook.com/VolCourt>.

UTRF Announces B. Otto and Kathleen Wheeley Award Winners

The UT Research Foundation has named University of Tennessee faculty researchers Gabor Tigyi and Tami Wyatt as winners of the B. Otto and Kathleen Wheeley Award for Excellence in Technology Transfer.

Tigyi and Wyatt will be presented with their awards during the Tech Council meeting hosted by UTRF on October 24, 2012.

The Wheeley Award is given to UT faculty who excel in the commercialization of university-based research results. The B. Otto and Kathleen Wheeley Foundation provides the award stipend of \$5,000 through an endowment fund, which was established in 1989.

Tigyi is Harriet Van Vleet Professor and chair of the Department of Physiol-

ogy at the UT Health Science Center in Memphis, and Wyatt is an associate professor of nursing and co-director of the Health Information Technology and Simulation Laboratory at the University of Tennessee, Knoxville.

"Dr. Tigyi and Dr. Wyatt are leaders in their research fields, and their contributions are making a difference in health-care, which leads to an overall increase in the quality of life for all Tennesseans. They are great examples of how the University fulfills its mission of education, research and outreach," said Dick Gourley, UTRF interim president.

Gabor's scientific work has centered on the biological properties of lyso-phosphatidic acid (LPA) and especially LPA's role as a fundamental cell signaling factor. One of the drugs he helped

develop could inhibit potentially lethal injuries from radiation exposure.

Wyatt has made significant contributions through creative and innovative approaches to teaching and learning in nursing education in the UT Knoxville College of Nursing and nationwide.

The award is named for Otto Wheeley, a UT Knoxville graduate, who was deputy chair of the Koppers Company and President of Kopvenco, a venture capital subsidiary of Koppers in the early 1980s and his wife Kathleen. Eager to promote technological entrepreneurs in Tennessee, he returned to the state and founded Venture First Associations Inc. and formed a close alliance with his alma mater to promote the commercialization of university-developed research.