

UM's Tech Transfer Notes
November 2010
2010 Year in Review

Dear Colleague –

Just over a year ago I sent my first Tech Transfer Note to the campus community, aiming to facilitate better communication and raise awareness regarding the impact of the University's research enterprise through commercialization activities. Reflecting upon my first year, I'm very excited about the progress we've made, and even more enthusiastic about the momentum that has been established leading into year number two!

To conclude 2010 I've compiled some highlights (below) focused around two themes: "**research impact**" and "**building the network.**" You can also download other 2010 UM Tech Transfer Notes from the following link – <http://www.umt.edu/research/techtransfer/TechTransferNotes.aspx>. Topics range from the Economic Development Summit to the difference between an *invention* and an *innovation*. Thanks to everyone for making 2010 a great year!

2010 RESEARCH IMPACT

Highlights of The University of Montana's success in generating life-changing and life-improving discoveries through research and commercialization efforts. Additional UM technologies are posted at UM's page on the world's largest Open Innovation Network, Flintbox – http://flintbox.com/public/search/?search_field=the+university+of+montana

TOPICAL TREATMENT FOR DERMATITIS

Side effects commonly linked to conventional corticoid dermatitis treatments have long created an opportunity for more effective approaches. UM's Dr. Philippe Diaz is currently developing a topical ointment for treatment of dermatitis utilizing a novel neuropathic pain treatment approach. Patents have been filed to protect this technology, for which the University is seeking a commercialization partner to begin clinical trials. Dr. Diaz is currently a Research Associate Professor in The University of Montana's Department of Biomedical and Pharmaceutical Sciences.

ENVIRONMENTALLY FRIENDLY POLYMERS

A Japanese patent entitled, "Method of preparing high molecular weight random polyhydroxypolyamides" was issued to the University in 2010. This environmentally friendly approach to manufacturing polymers is licensed, and was invented under government support from the U.S. Department of Agriculture. Inventors were Don Kiely, Kylie Kramer and Jinsong Zhang.

PHASE I CLINICAL TRIALS

The Sinapis Pharma team of Dave Poulsen, Nick Chandler and Don Picker launched this UM start-up to the front page of BioWorld this past summer by becoming a clinical phase company. Founded in 2009, Sinapis licensed UM stroke treatment technology that has shown activity in a rat model when administered six to twelve hours after a stroke. Sinapis is currently in the final stages of their Phase I trials, and planning to begin an adaptive Phase II/III trial study in 2011.

RIVER ANALYZER

Heightened environmental awareness is creating the need for greater accuracy in environmental restoration projects, which often involve the 3.6 million miles of U.S. rivers. Through sponsored

research, Dr. Mark Lorang developed a data synthesis tool that increases the precision of river hydraulic flow maps by utilizing actual, rather than modeled, data. The University is currently seeking a management team to launch a service based company around this proprietary beta software. Dr. Lorang holds a PhD in Oceanography and is a Research Associate Professor at the University of Montana's Flathead Lake Biological Station.

TRANSLATIONAL RESEARCH

The University of Montana's translational research strengths in basic science and pre-clinical studies were recognized in 2010 through the funding of a \$1.5M Department of Defense brain injury study. The grant will focus on better understanding the dosages of methamphetamine that reduce the effects of traumatic brain injuries, technology patented by the University. The military's interest is in a potential drug for special forces personnel which may be exposed to blast-force energy waves from explosions, and forward deployed where medical attention may be hours or days away. The funding went to Dr. Dave Poulsen, a Research Associate Professor in UM's Department of Biomedical and Pharmaceutical Sciences.

CROSS-ROTATIONAL KNEE BRACE

Many products exist for treating knee pain, including braces which are often times either ineffective, too bulky, or too expensive. Dr. Sara Scholtes is attempting to fix that. She invented a new cross-rotational knee brace that provides high end effectiveness at a fraction of the cost, in a very sleek profile. The University is now working with a Missoula based company to commercialize this patent pending brace, which should hit the market next year. Dr. Scholtes is an Assistant Professor in UM's School of Physical Therapy.

VACCINES

A U.S. patent entitled, "OMP85 Proteins of Neisseria Gonorrhoeae and Neisseria Meningitidis, Compositions containing the same and methods of use thereof" was issued to the University in 2010. The invention entails nucleic acid and amino acid sequences useful in vaccines involving non-symptomatic gonococcal and meningococcal infection. Research supported by the National Institutes of Health led to this patent, which is licensed. Inventors were Ralph Judd and Scott Manning.

BUILDING THE NETWORK

Highlights some of the key relationships established this year to help bridge the gap from basic level research discoveries to cutting edge companies and products.

COMMERCIALIZATION ADVISORY BOARD

One of the key elements of commercializing research based discoveries is an experienced perspective regarding the legal, financial and business elements of company growth and product development. With this in mind, The University of Montana's Commercialization Advisory Board was formed in the summer of 2010 by bringing together a solid group of individuals with experience launching and growing companies. The board currently meets quarterly with two primary objectives: refining early stage ideas into product concepts and providing mentoring for ongoing commercialization efforts (including existing university based start-ups). You can learn more about this group at the following link:

<http://www.umt.edu/research/techtransfer/Docs/TechTransNotesJuly10.pdf>.

INNOVATION INTERNSHIP PROGRAM

The experiential learning opportunities linked to technology transfer are plentiful for both business and

law students here on our campus. Therefore, this fall the technology transfer office launched an internship program with two participants, John Beltrone (MBA student) and Dan Flaherty (third year law student). Through the program both individuals were able to put their education to practice in real-world situations by performing market research, developing commercialization feasibility reports, and assisting with patent management for life science, software, physical science, and other technologies discovered at The University of Montana. The program will continue in 2011.

BUSINESS SCHOOL COLLABORATION

Partnerships between technology transfer offices and business schools exist around the country, and serve as a great platform for promoting entrepreneurship among faculty, staff and students. Here at The University of Montana, these models served as a starting point for the budding partnership between the technology transfer office and the University's School of Business Administration. As one aspect of this collaboration, this past year several business school faculty partnered student teams from their respective courses with inventors and entrepreneurs linked to the University's research enterprise. The outcome of the collective fall/spring projects was thirteen marketing reports and three business plans, one of which is showing promise to become an actual business.

BIG SKY ANGELS

A key role in the commercialization of university based discoveries is often times filled by angel investors, which essentially bridge the funding gap between friends and family and venture capitalists. The Big Sky Angel Network is a group of accredited investors that have come together in Missoula to provide this type of equity capital to early and mid-stage entrepreneurial companies, such as university start-ups. This is a major step forward in the University's efforts to help realize commercial impact from the research enterprise. The network members have extensive experience in founding, building, managing and financing companies in a wide variety of industries, and are currently meeting quarterly in Missoula to review deals.