ORPC By the Numbers: A Note from the Executive Director

The recent story of ORPC has been one of growth, change, and opportunity. ORPC has reported its metrics for FY2012 (July 2011-June 2012) and those metrics show solid progress. The office has made a tremendous effort to engage the campus community and open a discussion on intellectual assets far and wide. As you’ll see from the data provided here, our efforts have been rewarded in many ways. Disclosures, the lifeblood of any technology transfer organization, increased over 100% from FY11 to set a new UNH record of 32. This is critical to future growth as the disclosures of today lead to tomorrow’s revenue and opportunities. In any business, the next best thing to revenue is a robust pipeline; the UNH community is doing well filling the ORPC pipeline that we expect should lead to revenue growth in the years ahead.

But I couldn’t resist adding just one more thing.

In the lead up to our Annual Inventors’ Dinner, I asked for more recent data just so I could have some fresh content to speak about during the cocktail hour.

And. Just. Wow!

The first quarter of FY13 (July-September) has impressed even me. The nine disclosures received projects to another UNH record; we have completed 20 licenses (versus 22 in all of FY12); a startup company has been launched (with several more in the pipeline); and royalty receipts are already at just over 50% of FY12. Times have certainly changed.

Though growth can never be assured, it is certain that ORPC could not deliver these types of results without a stellar team dedicated to serving the university and creating licenses that support the business of our licensees. I was attracted to the opportunity to return to my alma mater based in no small part by the efforts of President Huddleston to place the commercialization of UNH intellectual assets at the core of the Strategic Plan. UNH leadership (none more than the Senior Vice Provost for Research, Jan Nisbet) has been unwavering in support of ORPC, providing the resources and commitment necessary for UNH to be an international leader in technology transfer and regional economic development. We may never be the biggest enterprise in the country, but we put in the effort every day to ensure we’ll be the best.

At the same time, don’t count us out of being the biggest either. You never know.
New Creative Works Program Producing Results

The Courage to Care™ curriculum is an example of a groundbreaking research-based and tested Creative Works program developed by Dr. Malcolm Smith, Dr. Rick Alleva, Thom Linehan of the UNH Cooperative Extension, and Jeff Frigon of the UNH Browne Center. This breakthrough curriculum focuses on increasing empathy and care for others in an effort to reduce bullying and meanness.

The ORPC has filed applications for “Courage to Care” and the “C to C” Logo trademarks used in connection with the program and which are actively being licensed along with the copyrighted curricula and materials to school districts in New Hampshire and nationwide.

Since late 2010, ORPC has participated regularly in social media, most notably through Twitter. Our strategy from the start has been to use the forum as a way to engage the world on a regular basis, more to enhance awareness of the issues affecting technology commercialization, intellectual property, and entrepreneurship than to promote specific UNH technology. But when we have technology to promote, we’re tweeting about that, too!

Recently, the office has created a weekly blog to create more long-form content with room to breathe, rotating posts authored by every member of the office. It’s often been said that technology transfer is a contact sport and there are few better methods of contacting thousands of your closest contacts than with social media. So visit the blog and tweet away! The latest ORPC information will appear in, oh, about 140 characters.

Blog: [http://www.unh.edu/research/blog-category/intellectual-property](http://www.unh.edu/research/blog-category/intellectual-property)

Twitter: [http://www.twitter.com/UNHinnovation](http://www.twitter.com/UNHinnovation)
Life, Liberty, and the Pursuit of Licenses

Perhaps the hardest aspect of technology licensing is finding licensees. And just like expert fishermen go where the schools of fish congregate, ORPC took a road trip to Philadelphia for the 244th American Chemical Society annual meeting to promote our latest promising technology that’s been 10 years in the making—UNHCEMS®.

UNHCEMS® software is a web-deployed chemical inventory management system developed in the fall of 2001 by software engineers at the UNH Research Computing & Instrumentation Center in conjunction with campus Environmental Health & Safety and with input from the Durham Fire Department. UNHCEMS® software has been endorsed by the federal Environmental Protection Agency as a ‘Best Management Practice’ and is currently licensed by UNH to nearly 20 different higher education institutions across the United States.

Prepared with promotional materials, portable barcode scanners, UNHCEMS® new mobile friendly environment allowing for iPad® demonstrations, and the always popular exhibitor candy dish, the UNH team engaged with industry and academic attendees from across the globe. The team spoke not only about why we were the only university Exhibitor at the conference, but about the management, safety, and compliance improvements that UNHCEMS® could bring to their home campus based on our own daily use of the software.

Most attendees professed to using spreadsheets to manage their chemical inventory and all were genuinely impressed with the possibilities that UNHCEMS® software could provide. Features garnering the most attention were the ability to know exact quantities of a specific chemical in a given lab and the ability to mark and search for surplus chemicals. These features can result in less waste and reduced costs – using UNH as an example, internal estimates are that UNHCEMS® software saved the Durham campus close to $80,000 the first year it was used in reduced waste fees and more efficient ordering of materials.
Breaking the Funding Barrier—Setem Technologies

It takes a lot to keep a good mathematician down. Since Dr. Kevin Short is an exceptional mathematician, we’re not surprised that nothing seems to stop his pursuit of commercializing his life’s work. In 2001, Dr. Short founded UNH’s first official startup company, Chaoticom, with the intent of applying his discovery of cupolets to encrypt, compress, and parse complex data streams. As there may be a few of us who are not aware, cupolets are a class of nonlinear waveforms in chaotic systems. Despite a series of remarkable technical achievements, including creation of the world’s first music downloading service to mobile phones, the company was ultimately not a financial success. Over the next few years, Dr. Short continued his academic work at UNH on cupolets and was even awarded a Grammy® award for being the master engineer on a team who restored a 1949 wire recording of a Woody Guthrie concert, but when the entrepreneurship bug bites you once, it’s sure to bite again.

Recently Dr. Short created a new company, Setem Technologies, which is using some of the same technology originally licensed to Chaoticom (and owned by UNH). As expected, the creation of Setem led quickly to another breakthrough, this time by raising over $1.4MM from a group of angel investors following a very long dry spell in investment activity in the Seacoast. After staffing up, progress has been rapid. Setem has begun software testing in “real-world” environments, investing in the construction of custom-built project boards that support audio capture with the same microphones as those used in the iPhone®, Samsung Galaxy® and other smartphones. Early results are extremely promising – tests were conducted in very noisy street and restaurant environments, and Setem was able to successfully extract a single speaker from very loud ambient noises (e.g. trucks; shouting). The net gain is Setem Technologies being able to substantially increase intelligibility while also demonstrating improvements in speech recognition.

We look forward to supporting Setem and Dr. Short to ensure that the second (entrepreneurship) time is a charm. Now if he can just improve the loud ambient noises in our staff meetings, that would be something…

Brown Bag Lunch: Understanding the Relationship Between Copyrights and Music

In a collaboration between the ORPC and the Music Department, UNH welcomed Dr. Catherine McGovern and Dr. Peter McGovern, UNH School of Law faculty members and well-known experts on copyright, entertainment, and art law, on September 25, 2012, to lead a discussion on how those in the music industry can best protect their copyrightable material.

The presentation was an overwhelming success and a highly educational opportunity for the over 100 students and faculty in attendance. Students asked critical questions regarding how best to protect themselves from infringing on others’ music rights as well as how to protect their own materials.

The ORPC looks forward to welcoming the McGoverns back to present similar discussions with the Art and Art History and Theater Departments at UNH in the near future.
Announcing the 2012-2013 Innovation Catalyst Seminar Series

We’re excited to kick-off the Innovation Catalyst Seminar Series for this academic year. Hosted monthly, the Series allows for the discussion of issues and case studies, led by experienced speakers, that are common interest and relevant to technology invention and commercialization. The idea for this informative series was first introduced as a way to increase the awareness and understanding of the role that intellectual property plays in fostering a creative and innovative culture.

The theme of this year’s seminars will focus on “Innovations in…” various sectors that are important in New Hampshire and opportunities for growth within those segments.

All seminars will be held on the UNH campus in the Elliott Alumni Center – 1925 Room. The seminars are free and open to the public. Attendees are encouraged to stay after the seminar for an opportunity to engage with University researchers, innovators, entrepreneurs, staff, students and local business leaders; refreshments are provided.

For more information, visit http://www.unh.edu/research/innovation-catalyst-seminar-series.

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New Internship Initiative with UNH Law

In February 2012, ORPC launched a new internship initiative to provide UNH Law students with hands-on experience in the field of technology commercialization. Two outstanding UNH Law students joined our office full time over the summer, with work continuing approximately 8-12 hours per week during the academic year. Interns were taught the basics of technology transfer, how to conduct market, technology, and patent assessments, and gained exposure to ongoing negotiations between ORPC and industry partners.

The ORPC is seeking to provide an experience for students to combine their technical backgrounds with the fields of technology valuation, patenting, marketing, licensing and policy. We have designed the internship experience to run a 12-month cycle that starts when a student has competed their first year of law school and runs through the end of their second year.

We will begin interviews in February 2013 for applicants interested in the next internship period of June 2012-May 2013. Anyone interested in joining ORPC as a law school intern should contact Tristan Carrier, Licensing Manager, tristan.carrier@unh.edu.

ORPC Celebrates Disruptive Innovation

Last April, ORPC sponsored Disruptivate, a one-day conference that brought together innovators, entrepreneurs, creative inventors, technologists, angel investors, venture capitalists and change-makers to celebrate the art and practice of "disruptive innovation."

Hosted by the NH Innovation Commercialization Center, Disruptivate held an encore event, Disruptivate Goes Vertical, on October 9 to hone in on the technology and innovation happening in health care and in education.

ORPC once again sponsored the event and Marc Sedam spoke on the panel “Should Universities Be Univenterous?” which explored the benefits and challenges posed by embracing entrepreneurship across the university.

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A Taste of Research - Pumpkins, Squash, Melons, and More

Dr. Brent Loy truly epitomizes the exciting potential of university technology transfer and commercialization. Dr. Loy, a plant biology professor at UNH since 1967, focuses his research on topics that directly impact northern growers, especially our neighbors here in New England. His results, though, are reflected in markets throughout the world. Recent work that is making its way to commercial venues include a new yellow mini-pumpkin hybrid, powdery mildew resistant (PMR) white pumpkin lines, and a new cantaloupe variety that carries a long shelf life gene. To keep up with Dr. Loy’s works, ORPC is writing and executing many license agreements covering pumpkins, yellow straightneck and yellow crookneck squash absent of prickly spines, melons, and a tomato inbred line reproduced as an "open pollinated" variety carrying an interesting carotenoid profile.

Dr. Loy has also been reaching out to local growers and hosted a pumpkin evaluation event at the UNH Kingman Farm in September. It was quite a sight to see the numerous displays of squash, pumpkins, and gourds throughout the research fields, while watching Dr. Loy hold court and answer questions that ranged from when to harvest squash to the genetics of pumpkin handles.

Dr. Loy was honored as the 2011 UNH Innovator of the Year, an award that now carries his name, and while we are proud of the global travels of his research, we certainly are glad that we can always enjoy it here at home, too.

Federal Funding for Small Businesses

Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) are government grant programs targeted to small businesses to fund innovation, research and discovery. ORPC, the New Hampshire Innovation Research Center (NHIRC) and the NH Small Business Development Center (SBDC) have been hosting statewide informational sessions, training and consulting led by Lisa Kurek, managing partner at Biotechnology Business Consultants, who has developed state-wide SBIR/STTR training programs for other states including Pennsylvania and Michigan.

President Huddleston kicked off this series starting in December 2010 by introducing the “SBIR/STTR 101” Workshop with over 40 attendees representing twelve NH small businesses, ten faculty, and administrators from State economic development agencies and UNH offices for sponsored programs, research development, and commercialization.

In April 2011 ORPC, NHIRC, and SBDC hosted two days of statewide SBIR/STTR workshops in Durham, Manchester and Nashua with emphasis on Medical Device Development and proposal preparation for Departments of Defense and Energy grants. Earlier in March 2011 Army STTR/SBIR Program Manager, Brad Guay came to campus to learn about UNH research, which he used to influence topics for the January 2013 Army STTR solicitation. And a series of four agency-specific workshops began in May 2012 in locations with the highest concentration of business interests related those of the federal agency.

From this series, four to five companies have taken advantage of a follow-on one-to-one consulting opportunity and four companies have subsequently submitted SBIR proposals. All of these events have been videotaped, available to attendees for reference. The SBDC will also use these tapes to develop a NH-specific eLearning course. The hosts continue to promote SBIR webinars including a session conducted for NH specifically, held this week, October 9th. All NHIRC awardees and NH faculty have access to the workshops and consulting for FREE.