The fiscal year closed on June 30 and STC is pleased to report a number of accomplishments this past year:

- A record number of invention and copyright disclosures
- A record number of patent filings
- A record number of option and license agreements
- Eight new start-up companies based on UNM technologies
- The first time our total income has exceeded $1 million

The activity for FY2009 is especially meaningful, given the U.S. economic challenges this past year. Entrepreneurial activity is key to the recovery of the economy and we are gratified that many seasoned entrepreneurs see the present climate as a good time to engage in a new start-up company. STC helped many of our existing and new start-ups with assistance in developing business opportunities, with introductions to potential investors and entrepreneurs, and with space in the Lobo VentureLab Accelerator. These start-ups are developing and growing, which will lead to economic development and important diversification of the New Mexico economy.

Of the new disclosures received by STC in FY2009, 25 were disclosed by lead inventors who were first-time inventors, indicating the growth in STC’s outreach efforts in the UNM community.

Technology leadership continues to be a key differentiating feature of STC. More of our inventors are using STC technology tools to disclose and keep track of their disclosures online, via STC’s Inventor’s Portal. In addition, the business community can receive “technology alerts” emails for information about new disclosures of interest by signing up at the STC web site (www.stc.unm.edu).

STC continues to be active in its efforts to keep our U.S. patent system strong. Please check the STC web site for the latest developments on proposed patent reform matters and add your signature to our online patent reform letter for New Mexico’s congressional delegation.

Lisa Kuuttila
President & CEO
kuuttila@stc.unm.edu
505-272-7905
Novel Intubating Devices

Tracheal intubation is the gold standard for airway care and management. A great deal of clinical experience and expertise is required to intubate more difficult airways. The main goal of a tracheal intubation is to maintain an open airway and effectively oxygenate and ventilate the lungs. When an intubation is not successful, the associated complications can quickly lead to patient suffocation and even death.

The intubating procedure can be performed using several different instruments and devices that are currently available. When an individual has a “difficult airway” or an airway in which the vocal cords cannot be easily seen, it is hard to direct the endotracheal tube through the vocal cords and into the trachea. To help assist in the passage of the endotracheal tube, healthcare professionals simultaneously use a laryngoscope (used to lift the tongue for visualization) in one hand and a malleable stylet in the other. Alternatively, a fibrescope can be used in place of the malleable stylet.

Although both stylets and fibrescopes greatly enhance the intubating process, these instruments have some drawbacks. For instance, a fibrescope must be maneuvered using two hands. This requires an additional person if the fibrescope is used together with the laryngoscope. The traditional malleable stylet has limited maneuverability and often requires removal from the airway in order to be reshaped. The fibrescope is maneuverable within the airway but only at the distal tip and not along the shaft of the scope. Although fibrescopes have some additional features such as a light and camera at the tip, they also come with a very expensive price tag.

Francisco Jaime, Assistant Professor in the Department of Anesthesiology and Critical Care Medicine at UNM’s School of Medicine, has developed a flexible intubating stylet which can uniquely rotate a full 360 degrees along the shaft of the styelt as well as 120 degrees from the vertical position at the stylet tip, while being maneuvered using a single hand. This allows it to be used by one person, in combination with a laryngoscope, and in the usual manner that intubations are routinely performed, and allows for the intubating procedure to flow much more quickly, safely, and effectively. This innovative yet inexpensive device also incorporates a light and camera at the tip of the stylet for better visualization, which eliminates the need for a fibrescope. Dr. Jaime has also developed a “Scope Tube” that uniquely converts a fibrescope into an instrument similar to his intubating stylet, also giving this instrument enhanced maneuverability and control using only one hand. These two innovative instruments’ improved handling and ease of use will transform intubating medical procedures and will lead to better, less expensive healthcare.

Innovative Hydrophobic Coatings Catch Industry’s Eye

Nature makes use of hydrophilic/hydrophobic coatings in very unique and effective manners. Take, for example, the lotus flower that grows in murky waters yet emerges and remains remarkably clean. The leaves of the lotus seem to cause water to bead up and roll off, taking any contaminants or parasites along with it. We now know that the fascinating fluid behaviors observed for the lotus plant arise from a combination of the low interfacial energy and rough surface topography of waxy deposits covering their leaves. This property is known as super-hydrophobicity.

A group of four coating technologies exhibiting super-hydrophobicity have been developed at the University of New Mexico. Dr. C. Jeffrey Brinker, Regent’s Professor of Chemical and Nuclear Engineering and Sandia National Labs Fellow, and Dr. David Kissel, former doctoral student in the Dept. of Chemical and Nuclear Engineering, have developed novel techniques to harness super-hydrophobic capabilities that have implications for many different industries. One of the coating technologies that mimics the self-cleaning properties of the lotus leaf, recently received an issued patent (“Preparation of Hydrophobic Coatings” US Patent #7,485,343). Two of the coating technologies were awarded an R & D 100 Award. These awards are given every year by teams of experts selected by Chicago-based R&D Magazine who name their choices of the year’s 100 most outstanding advances in applied technologies.

One of the R & D 100 Award winning technologies is a durable polymer/aerogel-based super-hydrophobic coating that appears transparent and requires only a very thin film (less than 150 nanometers) to exhibit its exemplary properties. Benefits of this material system include the coating’s durability and optical clarity, which is not typical of most super-hydrophobic materials. The coating can be applied to any type of surface regardless of shape, size or composition by spin-coating, ink-jet printing, blade-casting, dip-coating, and aerosol spraying. Applications for this invention include self-cleaning surfaces, non-fogging displays, anti-icing materials, insulation for mechanically abusive applications, sustainable corrosion protection, and water collection in harsh environments.

(continued on page 9)
Improved Performance of Dry Powder Inhalation Aerosols

Dry powder inhalers (DPIs) are recognized as the best device for the delivery of therapeutic agents because they keep the therapeutic agents sterile, have dosage flexibility, and maintain excellent stability of the agents, or drugs, in powder form. Although DPIs have gained popularity over the past few years as a result of their unique qualities, the devices typically have quite poor performance and efficiency.

Therapeutic agents administered from DPIs are micronized drugs in dry powder form. The small particle size of the drug powder (less than 5 microns) is necessary because it enables the aerosol to enter the airways and be deposited in a patient’s lung. This small particle size makes the particles especially cohesive and sticky so the drug particles must be mixed with “carrier” particles, which help to deaggregate, or break up, the drug and delivery it to the deep lung. However, even when carrier particles are mixed with micronized drugs, less than 30% of the treatment is administered to the aimed site and the remaining dose is deposited in the mouth and throat. This inefficiency results from the carrier-particle size and the material that the carrier is made of, which in the U. S. is lactose. When the lactose carrier collides with a mesh screen located near the mouth of the inhaler, the force imparted to the drug particle may not be strong enough to overcome the adhesive forces between the carrier and the drug, thus ejecting only a small fraction of the drug into the airways. Because the carrier particles are small (50-150 microns), they also make it through the mesh into the patient’s system, which is why they are made out of non-harmful materials such as lactose. DPIs on the market today are inefficient for the treatment of lung disease. By enhancing the carrier particles themselves, inhaled therapies will be more effective.

Dr. Hugh Smyth, Assistant Professor at UNM’s College of Pharmacy, has developed a novel modification of “carrier” particles specifically designed to improve the performance and efficiency of treatments administered by dry powder inhalers. Although the scientific literature has indicated that increasing carrier particle sizes decreased performance of DPIs, Dr. Smyth and his graduate student, Martin Donovan, realized that researchers had failed to study much larger carrier particle sizes where the physics of particle adhesion and deaggregation changes. A larger carrier produces a much greater deaggregation force that aerosolizes very fine drug particles efficiently, while the mesh screen prevents the carrier particles from leaving the device. The invention allows for almost any material to be used as a carrier particle in larger sizes to sustain high deaggregation forces. All that leave the device are pure therapeutic agents. Since carrier particle material doesn’t leave the inhaler, material toxicity/ingestibility is not an issue. The carrier particles can be matched to the drug and inhaler properties.

This technology’s potential for using a wide range of carrier particle materials to optimize drug-carrier interactions (i.e. changing surface chemistry, surface roughness, particle density, etc.) is superior to current carrier systems. In addition to improving performance of DPIs, the technology has the potential to significantly reduce development times for these drug delivery systems, saving millions of dollars and shortening the time it takes to bring inhaled drugs to market.

Advantages of an improved DPI formulation platform

- Higher efficiency of inhaled therapeutics
- Improved performance of therapeutics
- Improved transport to target sites
- High drug concentrations on site of action
- Low variability of dosing
- Shorter development time

STC has filed patent applications on these exciting new technologies and is currently examining commercialization options. If you are interested in information about any of these technologies, please contact Andrea Kemp at akemp@stc.unm.edu or 505-272-7886.
Two thousand nine saw the addition of STC’s newest start-up, ProtoHIT, Inc., a company formed around a management software program developed by Dr. Phillip Wagner, Assistant Professor of Medicine in UNM’s Department of Internal Medicine in charge of Project Echo’s workers’ compensation program. Dr. Wagner is board certified in occupational and family practice medicine and is considered an expert in the field of quality measurement and electronic data connectivity between employer, carrier, and provider. His many years in the fields of occupational and family medicine provided the basis for development of this special software program which uses a protocol system to define and monitor quality in healthcare delivery.

Dr. Wagner ran a large occupational health practice several years ago in northern California and initially started tracking his patients’ outcomes with a system already on the market. “After a year or two, I developed my own software to share information simultaneously with everybody involved, including employers, insurance adjusters, risk managers at companies and the patients themselves,” he said. The current system of managed care eliminates the patient from decisions affecting treatment costs, leaves employers out of the information loop, and causes an overall disconnect among all parties involved in the healthcare process.

This novel software program, which was initially designed for workers’ compensation patients but is now expanded to include patients receiving general medical care, offers standardized treatment based on best practices. Established protocols for injuries, such as carpal tunnel syndrome, are provided to patients and guide them into established treatments, which, in turn, improve quality of care for the patient and reduced costs for employers, carriers and providers. Sharing of information through a centralized database also cuts administrative costs. Dr. Wagner was able to reduce doctor visits to half the national average for workers’ compensation patients. Better documentation also reduced the length of each visit, increasing the number of patients who could be seen each day.

The software has attracted the interest of serial entrepreneur Bruce Fryer who has formed a new company called ProtoHIT, Inc., around the technology. Mr. Fryer, CEO of ProtoHIT, has an option to license the software from STC. Because Dr. Wagner designed and used the software in his occupational health practice in California for ten years, it’s a “proven technology, not theoretical,” stated Fryer. “Clinics that use it won’t need to go through a lot of hoops to get it implemented.” STC President and CEO Lisa Kuuttila recounted that when Dr. Wagner joined UNM a few years ago, he approached STC to commercialize it. “He needed an entrepreneur to take it forward, and Bruce Fryer fits the bill.” Mr. Fryer has worked with numerous start-up companies in the technology field providing business development, marketing, strategic and tactical services. He has a B.S. from Iowa State University and an M.B.A. from the Kellstadt Graduate School of Business at DePaul University. Mr. Fryer will be working with the software developers and running the company operations. Dr. Wagner is the Chief Medical Officer for ProtoHIT and will focus on the protocols and the correct process flow of the software.

The company raised $90,000 in cash and in-kind work in July to finance beta testing of the product in workers’ compensation clinics and develop a business model. Mr. Fryer stated that ProtoHIT is “thrilled with the high caliber of our investors: Dr. Dinesh Patel, who is Managing Director of vSpring Capital and Gareth Stenner of Intelligent Technology Partners, an experienced entrepreneur who has a deep background in Health IT, healthcare and technology in general. Kickstart Seed Fund rounds out our investors with their first investment in a New Mexico company. Additionally, Sybrant Technologies Private Limited is doing all the development in

(continued on page 9)
Adaptive Methods, Inc., developer of advanced sensor systems, the University of New Mexico’s Health Sciences Center (UNMHSC), Sandia National Laboratories (SNL) and STC.UNM, UNM’s technology-transfer arm, took an important step toward forming a long-term partnership by recently signing an option agreement. Under the agreement, Adaptive Methods may obtain an exclusive worldwide license to manufacture and sell products incorporating biosensor technology co-invented by researchers at UNMHSC and SNL. The parties intend to commercialize the technology for the rapid and selective detection of bioagents, with applications that span commercial, homeland defense, and military sectors. This effort represents the second advanced technology that Adaptive Methods has undertaken to transition from academia and public sector labs to the commercial market.

The novel biosensor technology, a collaboration of inventors at UNMHSC and SNL, allows for the detection of bio-agents such as bacteria, viruses and toxins, at low levels and in real time (less than 15 seconds), eliminating time-consuming sample preparation. The technology can also detect specific molecules at levels well below what is needed to create infections; UNM scientists have recently verified this using the Hanta and Herpes viruses. The biosensors are ligands (binding molecules) that are combined with signal-transmitting materials and surface chemistry to produce a highly selective biosensor. Richard Larson, M.D., Ph.D., Vice President for Translational Research and Senior Associate Dean for Research at UNM Health Sciences Center, is a co-inventor of the technology. “Potentially lethal bio-agents can now be detected in seconds instead of days, saving lives, saving time and saving money.”

This breakthrough technology will have a widespread and immediate positive impact. On behalf of the UNMHSC, I am proud to join with my colleagues at Sandia National Labs, STC and Adaptive Methods, Inc., in this historic endeavor,” Dr. Larson said.

Mark Meister, Vice President for Defense & Security Programs at Adaptive Methods, added that “Adaptive Methods is also proud to be a part of this team. We have a long history of innovating and transitioning technology solutions, and look forward to applying our expertise to this extremely worthwhile pursuit. We expect that this project will be particularly rewarding given the anticipated and far-reaching benefits to such areas as healthcare, biosafety, and biodefense.”

Lisa Kuuttila, STC President and CEO, noted that “it is exciting that the partnership among UNM, STC and SNL has resulted in the first step in bringing this important technology to market. Each party contributes a crucial element in the development and commercialization process.” Dr. Mark Allen, Manager of IP Management and Alliances & Licenses at SNL agreed, saying that “it is great to see UNM, STC and SNL working together to develop and license technologies which can potentially have a significant impact on our national security.”

ABOUT ADAPTIVE METHODS
Adaptive Methods, Inc. (www.adaptivemethods.com) is a developer of advanced sensor systems and sensor processing and computing architecture products for surveillance, security and military combat systems based in Centreville, Virginia, with satellite offices in four states, including a 50,000 square foot manufacturing facility in Chattanooga, Tennessee. For additional information, contact Mark Meister at 301-840-9722 or mmeister@adaptivemethods.com.
STC’s 2009 Creative Awards Reception, honoring UNM faculty, staff and students receiving patents and copyrights this year for their developing technologies, was held on April 13, 2009. Thirty-four UNM inventors received 15 patents and seven copyrights this year. Five UNM student inventors who developed videogames were the subject of stories appearing in UNM Today, The Daily Lobo and a local news station. More than 80 people attended the gathering which provided an excellent mix of university scientists, local entrepreneurs, venture capitalists, New Mexico business community representatives and university administrators.

Master of Ceremonies for the evening event was STC Board Chair and School of Engineering Dean, Dr. Joseph L. Cecchi. Dr. Richard S. Larson, HSC Vice President for Translational Research, and Dr. Julia E. Fulghum, UNM Vice President for Research joined Dr. Cecchi in congratulating the honorees for their creative accomplishments. Drs. Larson and Fulghum also acknowledged the importance of the research coming out of main campus and the Health Sciences Center and the valuable partnerships being created with the entrepreneurial and venture capital communities.

The keynote speaker for the reception was Dr. Lyle A. Hohnke, General Partner with venture capital firm Tullis-Dickerson & Company. Dr. Hohnke is the former President of the University of Connecticut Research and Development Corporation where he co-founded several healthcare-related university spin-off ventures and led a state effort to establish Connecticut Seed Ventures, a $12 million venture capital fund. Dr. Hohnke’s presentation, titled “Venture Capital and Innovation: Chicken or Egg?” provided an overview of venture capital trends and examined the experience of two innovative early-stage companies. He observed that good science is still essential to innovation and it is innovations plus creative capital that establish new companies.

Patents and copyrights awarded to these UNM researchers represent 22 technologies ranging from software programs for disease management to hydrophobic coatings to a spatial approach to mass spectroscopy. Several technologies have formed around start-ups while others have been licensed to companies or are being actively marketed, making a strong contribution to New Mexico’s economy. Lisa Kuuttila, President & CEO of STC, stated that “today, it is more difficult to receive an issued patent because the U. S. Patent & Trademark Office has become more concerned with patent quality and has reduced the number of patent allowances. At the same time, intellectual property has become even more important to the U. S. economy, as studies have shown that patents are critical to small companies—the group creating new jobs in the U. S. marketplace. The dedication our inventors have shown to the commercialization process is commendable and especially important during the difficult economic times that we are facing.”

Mary Schmidt, left, and Bill Hartman converse during a reception at the Science & Technology Park Rotunda. STC.UNM hosted the event to honor 34 researchers whose work earned 22 patents and copyrights this year.

Photo Credit: Zach Gould / Daily Lobo

Awards Recipients

Sanjeev Arora, M.D.  Seung-Chang Lee, Ph.D.
Plamen Atanassov, Ph.D.  Gabriel P. Lopez, Ph.D.
Ganesh Balakrishnan, Ph.D.  Andrea Alberto Mammoli, Ph.D.
C. Jeffrey Brinker, Ph.D.  Carolyn Mold, Ph.D.
Steven R.J. Brueck, Ph.D.  Robert T. Paine, Jr., Ph.D.
Hitendra S. Chand, Ph.D.  Dimiter Petsev, Ph.D.
L. Ralph Dawson, Ph.D.  Jonathan Phillips, Ph.D.
Terry W. Du Clos, M.D., Ph.D.  Wolfgang Rudolph, Ph.D.
Bruce S. Edwards, Ph.D.  Pradeep Sen, Ph.D.
Christie G. Enke, Ph.D.  Scott S. Sibbett, Ph.D.
Anthony L. Garcia, M.S.  Larry A. Sklar, Ph.D.
John R. Harger  James Thomas, Ph.D.
Diana Huffaker, Ph.D.  Craig Michael Vineyard, M.S.
McAllister H. Hull, Ph.D.  Peter Vorobieff, Ph.D.
Linnea Kathryn Ista, M.S.  Phillip L. Wagner, M.D.
Justin Kellogg, B.S.  Guanyu Wang, B.S.
Walter Kisiel, Ph.D.  Jeremy B. Wright, B.S.
Two-thousand-nine marks the four-year anniversary of STC’s gap fund program. The program, a technology-to-market gap fund, was established to break down the barriers to industry adoption of UNM technologies.

A major challenge for university inventors is to take their inventions beyond the traditional boundary of a publication or research result. This prototype funding gap—the void between early-stage research and development and a technology ready to commercialize—is widely recognized as an important obstacle that university inventors struggle to overcome. Typically, university research evolves to a point where obtaining basic federal research funding is difficult because the work is too applied. Obtaining industrial and venture capital support can also be problematic because the technology is considered too early.

STC’s Gap Fund @ UNM provides small amounts of funding to UNM faculty to advance their inventions to the proof-of-concept stage in order to attract corporate and investment capital for development of the technologies into products for the market. To be eligible for gap-funding awards, faculty should prepare a short proposal for a project based on technology disclosed to STC in an invention or copyright disclosure form that can be completed within one year. Proposals will be reviewed by an oversight committee comprised of UNM, STC and business community members. For more details on the proposal process and to submit your proposal online, go to http://www.stc.unm.edu/inventors/gapfunding.php.

New Patents and Copyrights

Issued Patents (January 1 - June 30, 2009)

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<th>Patent Title</th>
<th>Patent Number</th>
<th>Date Issued</th>
<th>Inventors</th>
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<tr>
<td>Novel Human Kunitz-Type Inhibitors and Methods Relating Thereto</td>
<td>U.S. Patent No. 7,541,449</td>
<td>June 2, 2009</td>
<td>Cindy A. Sprecher, Walter Kisiel, Donald C. Foster</td>
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Registered Copyrights (January 1 - June 30, 2009)

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<td>U.S. Copyright Registration No. VA 1-665-142</td>
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<td>Justin Kellogg, Pradeep Sen</td>
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<td>Buccaneer Bonanza!</td>
<td>U.S. Copyright Registration No. VAu 985-762</td>
<td>April 9, 2009</td>
<td>Craig Vineyard, Jeremy Wright, Pradeep Sen</td>
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<td>April 9, 2009</td>
<td>John Harger, Pradeep Sen</td>
</tr>
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<td>XTank</td>
<td>U.S. Copyright Registration No. VAu 985-754</td>
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<td>Guanyu Wang, Ruijin Wu, Pradeep Sen</td>
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</table>
At STC we value the many supportive and collaborative relationships we have with all of our constituencies, from the UNM Board of Regents who created the operational structure that makes it possible for us to protect and commercialize UNM technology to the inventors, entrepreneurs and investors with whom we work on a daily basis. One of the groups we value the most is our Board of Directors whose mission it is to provide STC with the expert advise and guidance we need to protect UNM’s inventions and transfer them to the commercial marketplace. We’d like to introduce our readers to the longest-serving member of our Board, Dr. Gregg L. Mayer.

Dr. Mayer has more than 20 years of experience as an entrepreneur, management consultant and company president for a variety of healthcare entities. He received both his B.A. in biology and his Ph.D. in physiology from the University of California, Berkeley. While at Berkeley, he co-founded and was the President of Berkeley Antibody Company, Inc., a biotechnology services company that is now a subsidiary of Covance, Inc. In 1987, Dr. Mayer joined Santa Fe-based Vivigen, Inc., a Nasdaq company operating the country’s largest prenatal testing business as Vice President and then President of the company. Business Week magazine named Vivigen one of “the best small growth companies in America” in 1988 and 1989. Vivigen was eventually acquired by Genzyme Corporation.

Dr. Mayer is fluent in Japanese and is a knowledgeable observer of Japanese culture and business practices. After leaving Vivigen, he moved to Japan and was a student in the Japanese language program at Keio University in Tokyo and a research student at both Keio University’s Graduate School of Business Administration and The National Children’s Hospital Research Center. Upon returning from Japan he joined the San Francisco office of McKinsey & Company, an international management consulting firm, where he worked for two years on projects related to healthcare financing and delivery. In 1995, Dr. Mayer established his own management consulting company in order to return to smaller and more entrepreneurial projects and has spent the last 14 years focusing on the healthcare markets in the U.S. and Japan. His clients include pharmaceutical, biotechnology, medical device, insurance, and disease management companies.

Sell Your Creative Works Online!

WolfWare®

WolfWare is the web-based commercialization avenue available to the University of New Mexico community—an online portal or storefront. WolfWare offers visitors around the globe the ability to browse and purchase licensable university product by convenient and secure 24/7 website transactions. WolfWare is administered by STC.UNM, and serves as UNM’s storefront on the foliodirect system.

foliodirect®

foliodirect is an online shopping center for licensable university intellectual properties through customized storefronts. It enables participating universities to license and distribute products to end users through a secure e-commerce platform. Visitors from around the world can browse, license, and purchase intellectual properties from any participating university. foliodirect is designed to be an enhancement, rather than a replacement, of your current marketing sites.

Do you have something you’d like to distribute through WolfWare or foliodirect? Please contact Minh D. Tran at 505-272-7937 or mtran@stc.unm.edu.
Newest STC Start-up, ProtoHIT, Inc., Based On Novel Software Program for Managed Care  (continued from page 4)

return for equity in the company.”

ProtoHIT will use “cloud computing” through Amazon Web Services to provide the software to users. Cloud computing is a process for delivering hosted services over the Internet. Amazon will host and maintain the system for a fee, allowing ProtoHIT to rapidly develop its services with no upfront costs. ProtoHIT will generate revenue by charging a small percent of the savings reported by clinics using the system. “We are currently porting the software to Amazon Web Services. Latest estimates are that deployment will be in September with 60 days of testing in the field with our two New Mexico beta sites: Reform Spine & Injury Care Centers and UNM HSC’s clinics,” Mr. Fryer said. The purpose of the beta testing will be to find any bugs, receive feedback from the users and develop a saleable product for customers. “We’ve made a lot of progress since March and we have a list of potential customers waiting to see the product—a nice mixture of Fortune-type companies, state agencies and carriers. We plan to have the software available to other customers through Amazon by the 4th quarter of this year,” he added.

Last year New Mexico spent approximately $1 billion on workers’ compensation claims. Mr. Fryer estimates that ProtoHIT’s software could save the state $150 million per year if implemented statewide. He stated that having “STC as a partner has been vital to our moving forward. STC defends its patents vigorously and that has made a huge impression on investors. Most technology-transfer offices walk away once a deal is done. STC does not—and that makes it special.”

The primary mission of Gregg L. Mayer & Company, Inc., is to demystify the often confusing healthcare marketplace. I help my clients chart well-defined and logical routes through the often foggy complexity of the healthcare system to enable them to more successfully develop innovative tools for doctors, hospitals, and patients,” he stated. Dr. Mayer is also a founding director of both the Disease Management Association of Japan and the Japan Society for Health Support Sciences, the two leading organizations working to introduce chronic disease prevention and support programs in Japan. He often lectures and writes on American and Japanese healthcare topics, usually teaching those in one country about the other.

We asked Dr. Mayer to give us his historical perspective on STC, the next innovations in biotechnology and the future of collaborations between university tech transfer programs and Japanese companies and universities.

What changes have you seen in the STC organization in the 15 years you’ve been a member of the Board? Like many startups, STC began as a virtual organization led initially by a consultant and built through the efforts of many people who devoted their time to the effort. The vision of the organization, to bridge the gap between promising university technology and successful commercialization to benefit the university and the community, has not changed. The founders had the foresight to populate the Board with half university people and half business people, who only together would have the right combination of skills and experiences to oversee STC’s development.

What has changed numerous times is the leadership and strategy, which has zigged and zagged as many times as any new business venture. Today, based on comparison to peers in the tech transfer community, we have a still young but state-of-the-art organization that is indeed successfully bridging the gap through both technology licensing and start-up promotion and incubation efforts. What is most heartening to an “old-timer” who bought into the original vision 15 years ago, is how STC has now become an indispensable part of both the academic university and local business communities.

As a knowledgeable entrepreneur and consultant in the healthcare and biotechnology fields, where do you see the next innovations coming from that would be of interest to university researchers? Healthcare is undergoing a complete paradigm shift from the old reactive system that waited to spring into action until someone became sick, to a proactive system that will invest more resources into keeping people well and out of the hospital. Chronic disease prevention and management is one example of this. Providers need new and better tools to accomplish this shift. Specific needs include better and earlier diagnostics such as biomarkers, medicines that can better stabilize and even reverse chronic disease progression, and population management programs using information technology to better track patients and their disease status.

Based on your extensive experience with Japanese companies, what does the future hold for collaborations between U. S. university tech-transfer programs and overseas counterparts? I think the field is still largely untapped, even though by most standards Japan is the world’s second largest economy. I believe few tech transfer organizations in the U. S. successfully reach Japan, due to the geographic, cultural, and language differences, all of which take significant resources to bridge. Most activity today is initiated through Japanese companies doing their homework and finding U. S. technology they want. But these efforts come primarily from the largest companies in Japan. Like the U. S., most job creation and growth in Japan is from small- and medium-sized companies. Tech transfer organizations need to figure out cost-effective ways to reach those companies.

Innovative Hydrophobic Coatings Catch Industry’s Eye  (continued from page 2) environmentally friendly to manufacture.

each of these technologies has received positive interest from industry, so STC looks forward to seeing the coatings in the marketplace in the near future. ■
New Board Member: Gene Gallegos

J. E. (Gene) Gallegos is President of the Gallegos Law Firm, P. C. He entered into private practice in 1963 after serving as an Assistant U. S. Attorney and Assistant Attorney General of New Mexico. He was a senior shareholder in the Santa Fe law firm of Jones, Gallegos, Snead & Wertheim since the firm’s professional incorporation in 1975. In 1987 he left the Jones firm to start the Gallegos Law Firm. Mr. Gallegos is also President of Pro NM Energy Inc., a small independent oil- and gas-producing company which focuses its business in the San Juan Basin of New Mexico. In January 2009, Governor Richardson appointed Mr. Gallegos to the University of New Mexico Board of Regents; he previously served on the Board of Regents from 1991-1996. Mr. Gallegos has achieved widespread recognition for his experience in commercial and antitrust litigation, with particular emphasis on complex natural gas matters. He is recognized by the New Mexico Board of Legal Specialization as a specialist in the area of Natural Resources—Oil and Gas Law. Mr. Gallegos received a B.A. in Government and Psychology from the University of New Mexico and a J. D. from the University of New Mexico School of Law.

New Staff Member: Mary Aleman

Mary joined STC in February 2009 as the Administrative Assistant and Receptionist and was recently promoted to Office Administrator. Mary is responsible for a wide range of administrative support at STC. She has several years of office administration experience with businesses and financial institutions. Mary holds a B.A. in Education from the University of Texas at Brownsville.

The New STC Inventors’ Portal

STC.UNM has just finished a major upgrade to their inventors’ portal, called My Technologies.

Now, inventors can check the status of their cases and manage all the related files and documents, alleviating the need for STC staff to bombard inventors’ email inboxes with informational-only status updates.

“It should really help on both ends. Our staff can be more productive working on our inventors’ cases, and our inventors don’t have to worry about their inboxes clogging up with information-only updates,” says Mark Horlbeck, Manager of Information Technology at STC.UNM. “Now, inventors can access all the relevant documentation for their cases in one central location on STC’s website.”

Additionally, STC has revamped both general case summaries and the entire online disclosure submission process to take advantage of recent web technologies like AJAX. JavaScript helpers now guide inventors through the status of their cases and through submitting disclosures by using collapsible sections that only show relevant data when needed. A screencast is also available to demonstrate how to submit a disclosure online.

If you’re an inventor working with STC, sign up for an account now and log-in at http://my.stc.unm.edu.
Intern Interview: Steve Lucero
Legal Intern

Steve Lucero is working on the perfect combination of skills desirable in a patent attorney: a solid background in the sciences coupled with a thorough understanding of IP law. As a legal intern at STC, Steve is getting plenty of practical experience in IP law to complement his studies at the University of New Mexico’s (UNM) School of Law. Steve has been at STC since December 2007. How did he find out about STC? “Well, it was basically word of mouth. I went to an orientation for the Mexican-American Law Student Symposium at the law school and met Isaac Estrada, another law student and STC legal intern.”

A native New Mexican, Steve graduated in 2001 from Del Norte High School in Albuquerque, NM. He was offered a full-ride scholarship to New Mexico Tech as well as a University of New Mexico Scholars scholarship and chose to attend UNM. He graduated from UNM with a double major in Physics and Applied Mathematics.

He was on his way to exploring a master’s in medical physics when he decided to take the LSAT. “After taking some non-degree classes in this area, I really wasn’t sure if it was a field I wanted to pursue,” he said. Steve was accepted into the law school programs at UNM School of Law, DePaul University College of Law (Chicago), and The John Marshall Law School (Chicago). He chose UNM not only because it was a quality program at an affordable price but because its diverse community of students was a more comfortable fit for him.

Steve’s duties at STC have steadily progressed from doing prior art searches on the technologies disclosed at UNM to editing invention disclosure forms to preparing provisional patents. Working on provisional patents with experienced patent attorneys has been very beneficial for him. “You get lots of feedback on your work and a realistic sense of the ‘grunt work’ involved in the patent process.” This year Steve even worked on a utility patent (the formal and detailed patent application submitted to the U.S. Patent and Trademark Office) with one of STC’s patent attorneys. Steve found this unique opportunity to be “a challenging process but working with an experienced and skilled patent attorney taught me that there is an art to writing a patent application. For a law student interested in intellectual-property law, working at STC is a great experience.”

Steve continued his studies this past summer with a trip abroad to Ireland where he participated in an exchange program with the University College Cork in Cork, Ireland (in cooperation with the Franklin Pierce Law Center) and attended an e-law summer institute. He studied the European IP system and IP law and the internet; courses included comparative IP law, cyberlaw, e-commerce, and a EU legal-political overview. Steve starts his third year of law school at UNM this fall where he’ll be tackling appellate law, clinical law and more patent law. And just in case you think it’s all work and no play for such a hard-working law student, you’ll have to catch a performance of Steve and his 2 improv groups, The One Night Stanleys and The Q: An Improvised Soap Opera. The groups perform at a local performance space called The Box every few months when the stresses of professional life and inspiration strike the right balance!

Post law-school plans may include application for a state appellate clerkship with the New Mexico Court of Appeals where, Steve explained, “a new lawyer can be exposed to a variety of legal work and learn what the best and the worst lawyers do.”

ABOUT STC and PORTAL AL MERCADO

STC.UNM strives to support the University of New Mexico and its partners as the source for innovation management and commercial development. Additionally, STC.UNM desires to play a vital role in New Mexico economic development and to be an innovator in commercialization worldwide.

Portal al Mercado is a publication of STC.UNM, produced bi-annually at the beginning of the fall and spring semesters for UNM’s faculty, staff, and students and New Mexico’s business community.

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for up-to-date information on and to register for our seminars and events!