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Technology Transfer Tactics™



The monthly advisor on best practices in technology transfer

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It is a common problem in technology transfer offices, where there's always more technology to manage than managers to shepherd those technologies along. Some innovations get more scrutiny than others, and even those with obvious promise tend to amble down the field in an unpredictable fashion. Deals can get done in this kind of environment, but it's hardly a blueprint for optimal productivity.

That, at least, was the conclusion of administrators in the Office for Technology Commercialization (OTC) at the University of Minnesota (UM), who decided to look for a way to bring more standardization to the way they review technologies and move them through the commercialization pipeline. "Each licensing manager did kind of their own thing, and there was no consistent process or timeline for evaluating [new technologies]," recalls

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TTOs skeptical of Kauffman-funded white paper

Distributed partnering model eschews conventional start-up road to commercialization

The ongoing effort to build a better mousetrap for commercializing university IP has spawned a new concept its developers have dubbed "The Distributed Partnering Model (DPM)." The model was recently described in a white paper available at http://www.kauffman.org/uploadedFiles/distributed-partner-ship-model_12510.pdf.

Duane Roth, CEO of the San Diego-based nonprofit business accelerator CONNECT, and **Pedro Cuatrecasas**, MD, adjunct professor of pharmacology and medicine at the University of California, San Diego (UCSD), offer an approach that focuses more on advancing products and technologies than on developing individual start-ups. Although designed for life sciences inno-

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Outsourcing gains favor as option for improving productivity, deal flow

Managing the growing volume of disclosures, patent filings, technology licenses, and spinoff activity is prompting some tech transfer managers to consider new tactics to handle more work without adding staff. Outsourcing is gaining interest as an option to shift service line responsibilities or IP portfolios to other entities, which may be located across the university or across the world.

Texas Tech University in Lubbock is a typical example. Its Office of Technology Transfer and Intellectual Property, established in 1998 with a director and office assistant, initially was focused more on protecting than commercializing IP. In 2007, the university hired David L. Miller, JD, MBA, a serial entrepreneur, to manage the office. A year later, the department was renamed the Office of Technology Commercialization (OTC) and expanded to respond better to the needs of researchers, explains **Amber Dean**, associate managing director.

Although the OTC now has five full-time staff, "compared to other universities our size we are still relatively small," says Dean, a presenter at *TTT's* recent audioconference, "Successful Outsourcing for Tech Transfer Organizations." Nevertheless, the OTC has significantly boosted production, increasing invention disclosures from 31 in 2006-07 to 61 in 2008-09 and more than doubling license agreements, from four in 2006-07 to 10 in 2008-09, and total revenue, from \$231,000 in 2006-07 to \$622,000 in 2008-09.

The OTC accomplished that growth, in part, by outsourcing segments of the tech transfer process to "fill some of the gaps" in its knowledge base while maintaining control of the mechanics of licensing and

commercialization, according to Dean. Because business people rather than technicians staff the office, its biggest need is to evaluate new technologies for their technical merit and commercial potential.

"Typically, we see about a third of our disclosures from our medical school, a third from our engineering school, and a third from our agriculture school," Dean says. "Not one of us in our office has a particular background in those areas, so it was very important to find expertise in those fields to help us evaluate technologies."

A low-risk arrangement

Serendipitously, **Newton F. Hamlin**, a managing partner with Austin, TX-based LGE Execs, had previously approached Texas Tech officials to discuss strategies to increase the school's technology commercialization prospects. LGE Execs is a network of more than 75 former top executives -- mostly retired CEOs, presidents, CIOs, CTOs, CFOs, and others -- with a track record of running companies, leading business units, growing start-ups, raising capital, and spearheading mergers and acquisitions.

Following Hamlin's initiative, the OTC established a formal relationship to assess promising new technologies. When the office receives a discovery, the staff sends a nonconfidential summary to Hamlin, who reviews the technology or forwards the idea to a colleague. The reviewer provides the OTC with an "opportunity rating" on a scale of A-F, based on the projected investment needed to achieve certain milestones, timeline associated with those milestones, and potential challenges associated with the technology's development. The review weights each technology using criteria such as market size, urgency of the solution for the market, and strength of IP protection. If the rating is strong enough, the OTC begins to explore the possibility of

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forming a start-up.

"There's no charge, typically, for this type of review, so that's a huge cost savings for our office," Dean says, adding that outside consultants quoted the OTC fees of \$3,500 and up per technology to conduct the same service. Once a technology receives a thumbs-up, the university licenses the technology to a start-up while Hamlin's organization puts a management team in place and begins to raise money for a serious commercialization effort.

"We've done a pretty big evaluation for Texas Tech and spent quite a bit of time and energy, at no cost," Hamlin says. "From that, we'll see at least two -- maybe more -- good potential commercial successes. When we talk with different universities or venture capital groups, we just work out the best way for us all to move forward."

Jim Havener is a former member of Hamlin's technology review team who now serves as president and CEO of Texas Multicore Technologies, a recent Texas Tech spinoff. When a TTO invests no up-front money in an outsourcing arrangement, it must agree to licensing terms that will allow a start-up to establish a revenue stream and profit margin that will appeal to investors, he says. TTOs also must provide IP rights that are sufficiently broad to allow an exit strategy as the company grows.

Texas Multicore Technologies emerged from the outsourcing arrangement at Texas Tech with an exclusive license and full rights to the IP. With a strong technology and an attractive financial arrangement, "we were able to move at blinding speed to form the company," Havener says. "We set our business plan so that we had very specific milestones to meet, and we have been meeting them." The company pays royalties to Texas Tech on revenues generated by the technology.

Outsource to internal departments

The OTC outsources other functions within Texas Tech. Each semester, the office partners with MBA students in the College of Business to conduct in-depth market analyses of new technologies. Four-person student teams review the disclosures, along with patent and supporting information, under an NDA. The students meet with the inventors, conduct pro forma analyses, perform a SWOT analysis of the technology, and provide the OTC with a detailed executive summary and recommendation to proceed, hold, or pass on the technology.

"We try to take advantage of our grad students as much as possible, because that's an additional free resource," Dean says.

"Some of these reports go into great detail, which our office, with a small staff, does not have time to do," she adds. When a study team gives a technology a thumb's up, the group also suggests whether to license the technology or form a start-up. The OTC forwards these analyses to Hamlin, and his team begins to review the technologies.

The OTC also collaborates with students in Texas Tech's English department who are studying technical communications. Also working under an NDA, the students use nonconfidential background information on OTC technologies to develop one-page executive summaries, which are posted on the OTC's web site once the technologies are available for licensing.

Outsourcing patent and legal services is another option -- especially for TTOs with small staffs or spikes in disclosures or patent filings. Cost is a big hurdle to maintaining these relationships, however, as legal fees based on hourly rates can escalate quickly.

Increasingly, foreign law firms are seeking to provide patent support and other services in the U.S. For example, Indian law firms charge \$40 to \$70 per hour compared to \$200 to \$250 per hour in the U.S., says **Jitin Talwar**, a patent attorney and founder of Talwar & Talwar Consultants, based in Chandigarh, India.

Offshore outsourcing is a tricky proposition for certain services, but patent support tasks such as potential infringer searches, patent landscape analysis, patent valuation, and portfolio management and basic legal services such as e-discovery, due diligence studies, and research can be skillfully managed overseas at a lower cost than in the U.S., he maintains.

Many universities have interesting IP sitting in their portfolios but lack the time or resources to pursue licenses, Talwar points out. By outsourcing, "they can have someone review their portfolio and look for licensing opportunities as well as potential infringers," he says.

Structure win-win agreements

TTOs also could partner with offshore entities to expand commercialization prospects outside their geographic region. Universities outside North America have been more aggressive than U.S. TTOs in pursuing these types of relationships, Talwar

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Leza Besemann, MS, a technology strategy manager at UM's OTC, based in St. Paul, MN.

In addition, Besemann explains, staff from the OTC's Venture Center, who are charged with scouting out start-up opportunities, felt like they were being kept in the dark about new innovations that were coming in the door. "They would hear about things very late in the evaluation process, and they wanted to have visibility early on," she says.

Model borrows from industry

To streamline the process, administrators turned to the stage-gate model, an approach that is widely used in industry to funnel new ideas through a series of established stages or gates before they get to the point where a product is ready for launch. While the term "stage-gate" has been trademarked, and is used in any number of different tools on the market today, it is also used loosely to refer to a philosophy of innovation management where you have decision points or mile-

stones in place to guide the progression of innovations through the commercialization process.

In commercial industry, the stage-gate process is typically used to map an idea all the way to product launch, so you actually have a tangible product at the end, says Besemann. "You are doing product testing and different things that don't apply in the academic setting because our product is a patent," she says. "We could actually go through all seven of the stages [in our model] before we have an issued patent."

Transparency is important

The UM model begins with an idea screen that is designed to facilitate as much input as possible regarding how best to proceed, explains Besemann. (See Figure 1 for a graphic depiction of the stage-gate process.) Both stage one and stage two ideas are reviewed every Wednesday morning in a "gate" meeting that includes technology strategy managers, who focus on evaluating the commercial potential of new ideas; licensing managers who

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Figure 1

OTC STAGE GATE PROCESS

*** Process for evaluating, protecting and commercializing innovations at the University of Minnesota ***



Stage / Gate	Stage 1	Gate 1	Stage 2	Gate 2	Stage 3	Gate 3	Stage 4	Stage 5	Stage 6
Generic Name	New Docket & Ideas	Gate 1 Meeting	Stage 2 Prep	Gate 2 Meeting	IPCC Prep	IPCC Meeting	Contact	Negotiate	Close Deal
Description	Seek and docket new ideas	Inform group of new ideas	Evaluate commercial potential & IP position	Present business case for technology	Develop financial analysis & marketing strategy	Present detailed strategy to IPCC	Contact potential licensees	Negotiate business and legal terms	Close Deal
OTC Lead(s)	TSM TSM		TSM	TSM	TSM & TMM VC for start-ups	TSM & TMM VC for start-ups	TMM TMM	TMM	
Tasks & Activities	Researcher with new idea contacts TSM to discuss. Researcher sends IPDF to umotc e-mail.	Complete Stage 1 portion of Stage Gate document. Present idea at Stage 1 meeting for feedback.	Assess inventor, technical merit, protectability, commercial potential. Prior art search, market research.	Complete Stage 2 portion of Stage Gate document. Present recommendation and rationale at Stage 2 meeting.	Develop detailed financial justification, value proposition and commercialization strategy.	Complete Stage 3 portion of Stage Gate document. Present case to IPCC for approval.	Develop marketing materials. Contact potential licensees.	Develop term sheet and negotiate.	Finalize contract terms.
Primary Client	Faculty / researchers	Faculty / researchers	Faculty / researchers	Faculty / researchers	Faculty / researchers	Faculty / researchers	Companies / Start-ups	Companies / Start-ups	Companies / Start-ups
Elapsed Time	0-2 weeks after receiving completed IP disclosure form		< 3 months after docketing		~ 10 months after filing provisional patent application		Months to years		
Possible Outcomes	Close; Evaluate further (Stage 2); Watch & Hold		Close; Watch & Hold; Protect IP (provisional application or copyright)		Close; Continue to protect IP		Negotiation plan; Close	Agreement to terms; Close	Signed license
Approval	Group consensus		Group consensus		IPCC members		OTC Executive Director VC Director for deals with equity		

Definitions: Close: Close docket (technology) and not pursue commercialization; IPCC: Intellectual Property Commitment Committee; IPDF: Intellectual Property Disclosure Form; Stage Gate Documentation Form (Stage Gate Document): Used document the information collected during the evaluation process, the decision and rational at each stage in the process and the commercialization strategy; TMM: Technology Marketing Manager; TSM: Technology Strategy Manager; VC: Venture Center

Source: University of Minnesota Office for Technology Commercialization.

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handle sales and marketing; CEOs in residence; and advisors who are external to the university, but are employed on a contractual basis to assist the OTC with commercialization activities.

In stage two, technology strategy managers make a recommendation regarding how to proceed with the innovations. There are three possible paths at this point -- dropping the technology from any further consideration, filing a patent application, and placing a technology "into 'watch and hold,' which is basically a holding pattern, indicating that we either need additional data from the inventor or it is not quite ready for a patent application," explains Besemann.

The results regarding each technology are written up so that the conclusions regarding commercial promise and next steps are all documented. "Many times we take that documentation in filtered format back to the inventor to explain to them why a decision was made," she says. "It helps to make our office more transparent."

Stage three is most challenging

One pitfall to opening up portfolio management discussions to a large group of people is that meetings can get bogged down with lots of detailed questions that can veer the process off track, acknowledges Besemann. "There is a fine balance that has to be [managed]," she says. "When we first started this process everyone would make their recommendation pitch in a slightly different way, so we put together a 'talking points' sheet ... so that the group knows exactly what pieces of information to expect, and in what order. That keeps the meetings running more smoothly."

Besemann says the most challenging stage in the model is stage three because that is where the innovations are transitioned from the technology strategy managers to technology marketing managers. But she stresses that the UM model helps facilitate this hand-off because both the technology managers and the marketing managers have been involved from the start of the process. Still, she notes, it can be tricky trying to get two individuals working together in the same time frame and with the same priorities.

Besemann emphasizes that while three months are allotted for the first two stages in the model to be completed, and the third stage is typically commenced one year after filing a provisional application, stages four, five, and six -- which deal with

marketing, negotiating, and closing the deal -- can take place concurrently. Stage seven involves compliance. "This isn't a straight, linear process," she says. "There are all different kinds of ways to get [to the end of the process]."

Risk management is critical

Nicholas Webb, an inventor and president and CEO of San Francisco, CA-based Lassen Innovation, a management consulting firm that specializes in new product development, cautions that while the stage-gate philosophy is sound, it is mistake to think it is a magic bullet for commercialization success. "There are some things that you can't develop highly effective processes around because it has to come from the belly. You have to be an entrepreneurial organization," he says.

Further, to appeal to prospective licensees, he emphasizes that any system of milestones or gates should thoroughly cover what the market potential of an innovation is, how much it will cost to make and sell, what the profit margin will be, and how long it will take to reach a specific market penetration. In other words, Webb says there should be a heavy emphasis on taking away any risks that industry might consider when evaluating whether to license out the innovation.

"Too often, universities want to talk about the technology, the body of research, the [development] team -- everything other than what the industry wants to hear," he says. "Really great products and really bad products look almost identical [early on in the process of development]," he says. "Industry wants the risks taken out [of the equation], and nobody in tech transfer gets the fact that they have to develop an instrument that dovetails directly into the way that corporations think, and what the internal dynamics are within those organizations."

Besemann counters that she and several of her colleagues worked in product development in the private sector before coming to the OTC, and that they have developed their innovation management model with the concerns of industry in mind. "We are very market focused," she says, explaining that the template the OTC uses to prepare new technology pitches for the "gate" meetings prioritizes commercial potential. "We look at what product is going to result from the technology, who would use that product, why they would use that product, what is the market need, what are the competitors or alternative technologies, and how does what we

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have compare to that," says Besemann. "We will pull secondary market research and find out those pieces, so that is actually forefront in our analysis."

The other areas addressed in this forum are protectability, technical merit, and the inventor. "It is hard to write down comments about the inventors, but people are always an important factor in tech transfer. So if the PI [principal investigator] is not willing to work with our office or, on the other hand, has had huge successes in licensing out their technologies, then maybe that will sway our decision [on whether or not to go forward with the

technology] one way or the other," says Besemann.

While Besemann cannot specifically credit the process for delivering deals that might otherwise have gone by the wayside, she says it has made the workings of the OTC more transparent, established timelines so technologies aren't left in limbo for months on end with no response, and enhanced fairness and consistency in what gets attention and how it is evaluated. The stage-gate process, she says, "allows us to have consensus decision-making as opposed to one individual making decisions in isolation."

Contact Besemann at 612-625-8615 or besem007@umn.edu; contact Webb at 530-244-6336 or nick@nickwebb.com. ►

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vation, the model also can be applied to other technology sectors, according to the authors.

The biggest problem with the conventional start-up model is the Valley of Death, "which is where I live" at CONNECT, Roth tells *TTT*. Although research funding has poured into biotechnology since the passage of the Bayh-Dole Act in 1980, driving a growing number of ideas and disclosures, the financing system to commercialize that IP "is just not functioning -- especially in the start-up phase," he maintains.

Biotechnologies coming from university research labs now focus on small molecules, not proteins or antibodies. Although the technologies are innovative, they're increasingly risky. VCs are shunning these early discoveries in favor of downstream technologies with well-identified lead compounds that are likely to succeed in clinical studies -- even though this scenario almost never occurs, Roth says. The DPM "describes a way to think a little differently -- perhaps more rationally -- about how we fund early-stage innovation," he says.

The DPM is built around four independent steps of a collaborative process to advance discoveries by sharing, or "distributing," the financial and technical R&D risks, based on the unique assets, expertise, culture, and risk tolerance of participating organizations. The four steps are:

1. Discovery. Universities and other research institutions would continue to play a leading role in applying their scientific expertise to generate new discoveries and technologies.

2. Definition. A new type of organization called a product definition company (PDC), which combines an experienced management team with investment capital, would assemble a portfolio of discover-

ies in a given field, define initial product(s) from the discoveries, and advance them through product definition for eventual sale to third parties, such as VCs.

3. Development. Well-defined products would be handed off to professional service providers (PSP), which would move product development to "proof of relevancy," when products would be ready to advance to the marketplace.

4. Delivery. Companies, such as big pharma, would acquire products from the VC owners when they emerge from development, then package and deliver them through their own distribution channels.

DPM builds products, not companies

The key to the model is the formation of PDCs comprised of entrepreneurs and professionals with experience in a particular industry or technology. In biotech, for instance, a PDC might encompass pharmaceutical research, clinical sciences, regulatory affairs, operations, and marketing. Certain individuals in the PDC would have extensive university contacts and familiarity with early therapeutic discoveries available for licensing. Each PDC would leverage its collective knowledge to assemble portfolios of related research discoveries, supervise product definition research, and sell well-defined products or technologies to a VC.

The DPM proposal calls for PDCs to invest \$2 million to \$10 million in each project, depending on the cost to achieve "proof of relevancy" -- in other words, sufficient progress to attract a buyer. Roth and Cuatrecasas predict that well-defined products would achieve proof of relevancy in an average of three years.

The model does anticipate frequent technical failures during the definition stage. Because these

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would occur early in the pipeline, however, they would be less costly to investors and might still produce valuable IP for the PDC.

Instead of spending capital to build a company, DPM calls for independent PSPs to conduct the translational experiments and move a technology to the development stage. In fact, the emergence of PSPs over the past 30 years enables TTOs to move away from the start-up model. "The only reason we can talk about this model today is the existence of professional service providers," Roth says.

In the '80s, start-ups represented an appropriate mechanism to move discoveries from the lab to the development stage. However, each start-up requires infrastructure -- buildings, equipment, and people -- which carries the burden of an enormous burn rate. When discoveries are proven, acquisition includes the cost of that infrastructure.

Today, development can be managed "in the cloud" by PSPs, Roth says. These entities can use their existing infrastructure -- or operate virtually -- to work with PDCs during the product definition stage and contract with VC owners during product development. Hence, the majority of investment would fund continued product or technology development rather than operating and maintenance costs.

"The difference here is that, instead of starting a company around every idea, you would start a company that takes 10 ideas forward in the given area of expertise of the team managing that product definition," Roth says. "Do we need 300 cancer companies or do we need 300 cancer products?"

Tech transfer's role in DPM

The federal government still would play a critical role in the distributed partnership model by funding early-stage science and technology at research institutions. In addition, the paper calls on the feds to provide funds to match private sector PDC investment. These dollars would be designed to bridge the Valley of Death -- "the big bottleneck" in commercializing research, Roth says. As a limited partner, the government would share in profits from successful ventures and spread the risk of failures.

TTOs also would continue to play a pivotal role by working with PDCs to move discoveries by product area, whether cancer therapeutics, biofuels, or nanotechnology. DPM calls for licensees to receive traditional up-front fees, milestones, royalties, and equity ownership, but they would have lit-

tle or no hands-on involvement once an innovation moves out of the university lab. "Most academic researchers do not have the experience, temperament, or even interest in undertaking most of this work," Roth and Cuatrecasas write.

The PDCs, which could be public or private companies, would need \$50 million to \$100 million in initial capitalization to address multiple projects. PDCs would attract investment from angels, VCs, foundations, and large corporations on the basis of their management expertise and the strength of their portfolios. The return on successful projects could range from two to 10 times the invested funds upon the completion of definition research, according to Roth and Cuatrecasas.

PSPs, in contrast, would be versatile organizations -- integrated or virtual -- with staff, facilities, equipment, and technical know-how. In biotech, for example, PSPs might oversee formulation and dosage-form development, advanced clinical trials, long-term toxicology, manufacturing technologies, and regulatory submissions. Once a product is ready for market, VC owners would then sell the asset, distributing the wealth proportionately.

TTOs wary of model's motives

The white paper was underwritten by the Kansas City, MO-based Ewing Marion Kauffman Foundation, which has raised the hackles of many TTOs. Following Kauffman's proposal for "free-agent" faculty in the January-February issue of *Harvard Business Review* in which **Robert E. Litan**, PhD, vice president for research and policy, and **Lesla Mitchell**, vice president for advancing innovation, skewered university TTOs, the commercialization debate has continued to rage. And although Roth maintains that the ideas came solely from him and Cuatrecasas, tech transfer professionals have greeted the DPM with some skepticism.

"Bluntly, I think this is an extremely ill-founded proposal," says **Lita Nelsen**, director of the Technology Licensing Office at the Massachusetts Institute of Technology (MIT) in Cambridge, which is a perennial powerhouse in start-up formation. Tech transfer is local, Nelsen points out. "The majority of important entrepreneurial deals are done with people we know in the faculty, so the distributed model doesn't work," she says.

In addition, the model is silent on patent costs and ownership, Nelsen says. TTOs file patents based on the potential for discoveries to become real-world

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products and technologies, “not because we have somebody lined up to do that,” she says. The danger under the DPM is that is that PDCs would cherry-pick promising discoveries and most disclosures would fall by the wayside -- the situation that often prevailed under the so-called “big pharma” model that preceded the emergence of start-ups. “We don’t need to go back to that era,” Nelsen says.

At the University of Utah in Salt Lake City, which ranked No. 1 in start-ups in the *AUTM U.S. Licensing Activity Survey: FY2008*, **Brian A. Cummings**, director of the Technology Commercialization Office, applauds the effort by Roth and Cuatrecasas to shake up the status quo and address the shortcomings of the start-up model -- especially where pharmaceutical development is concerned. Still, he worries about the parallels between the DPM and Kauffman’s widely scorned “free agency” proposal.

“I guess I’m a little cynical that they’re just trying to repackage things and bash the current model of technology transfer,” Cummings says.

In an interview with *TTT*, Kauffman’s Mitchell doesn’t discourage that notion.

“We know that the current model is completely broken, as evidenced by what looks like a meltdown in the pharmaceutical industry,” she says. “What’s interesting about Duane’s proposal -- and this is his proposal -- is that the concepts are not too dissimilar to our issues and recommendations relative to university innovations at large. The not-for-profit sector must stay engaged for a longer period of time, and we need to see more proof-of-concept models taking place at the university level to move the technology further along.”

Model ignores research relationships

Tech transfer professionals don’t necessarily disagree that universities should help shepherd emerging technologies further along the pipeline. But Cummings sees a glaring omission. Increasingly, researchers from multiple institutions work in cross-functional, interdisciplinary collaborations. The DPM model doesn’t address the handling of these complex relationships, which TTOs must negotiate on a case-by-case basis.

At U-Utah, “we set up our model making sure that all of the stakeholders are aligned,” Cummings says. In the DPM, “you’re going to get alignment within the PDC because they’re bringing in the entrepreneurs, the technologies, and the venture

capitalists, but that’s alignment for capital’s sake -- not for the sake of universities trying to do technology commercialization.”

Carefully defining products, as the DPM proposes, is a wonderful concept, “but that notion pushes all of the risk into these new [PDCs],” adds **Jack Brittain**, PhD, U-Utah’s vice president for technology venture development. Several years ago, the university experimented with a similar concept in which early-stage biotech research would be handed off to a commercialization entity “and we would be able to get real potential drugs on the other side,” Brittain says. “We weren’t able to figure out a way to organize it so that there was enough certainty around the risk/reward ratio.

“Everyone can understand that a partnership will pay off if you get a home run,” he adds. “But can you put enough projects in [the PDC], given that capital structure, to get that home run? If you don’t, it starts looking kind of ugly in there.”

Still, many research universities are launching hybrids of the DPM. U-Utah has a drug development center that brings together experts in the field, entrepreneurs, and VCs to move technology forward in specialty areas focused around unique imaging software, energy applications, and disease states. “I’d never thought of this as a PDC, but it’s certainly a similar model,” Cummings says.

Harvard University is using a version of the DPM model on early-stage technologies, according to **Mark Chalek**, chief of business ventures in the Technology Ventures Office at Beth Israel Deaconess Medical Center, a partner of the Dana Farber/Harvard Cancer Center. Likewise, “we are trying to do something that looks very similar” to the DPM, says **Jon Soderstrom**, PhD, managing director of the Yale University Office of Cooperative Research. Although he declines to offer details, Soderstrom says the project “has the potential to move some things to a point that they are sufficiently de-risked to be of interest to pharma/biotech partners.”

DPM-like model in action

Washington University in St. Louis had a similar relationship with the life sciences VC Alafi Capital Company LLC, of Berkeley, CA, according to **Harry “Duke” Leahey**, who opened WU’s Technology Licensing Office in 1982 and now serves as executive in residence at the nonprofit Nidus Center for Scientific Enterprise in St. Louis. In 1985, WU and Alafi formed the A/W Company, which

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launched more than 10 product definition companies. Each consisted of a “virtual” company, part-time executive management, and start-up investments of \$250,000 or more per project to move the technology to commercial proof of concept.

Although the WU-Alafi partnership dissolved years ago, Alafi continues to support the Scripps Research Institute in La Jolla, CA, in another collaboration cited as a forerunner to the DPM. And in St. Louis, “we are using a similar approach now at the Nidus Center, only the companies are formed based on market pull, rather than technology push,” Leahey says.

Nidus is seeking to accelerate technology commercialization in the energy, biotech, seed, and grain industries by cross-pollinating entrepreneurs, researchers, corporations, and investment capital, says **Victoria A. Gonzalez**, the Center’s president and CEO.

The Nidus model was launched just last year, “so we’re not yet in a position to measure results,” she says. However, the Center hopes to overcome the paucity of experienced entrepreneurs that have plagued technology commercialization efforts in the St. Louis region. Focusing on market pull provides entrepreneurs with an exit strategy, Gonzalez points out, while working with multiple industries offers them diverse opportunities to score a hit with an early-stage technology. If the Center can attract entrepreneurs, they’ll bring seed money with them, she says.

Gathering outside intelligence critical

According to Leahey, the DPM won’t improve on existing tech transfer efforts unless the PDCs can obtain market intelligence from potential industry partners. Nidus is seeking to acquire that information by building those relationships.

“I spent 25 years on the university licensing side of the business, and I wish I had had that kind of resource to understand whether I was supporting the right technologies and to know how those technologies fit inside a market,” Leahey admits. “It’s hard to get companies to open their kimono and talk with universities about their technologies.”

Mitchell agrees. “The most important lesson we’ve had from our research on Deshpande [Center at MIT] and von Liebig [Center at UCSD] is to make sure you put together an advisory board of people who are not from your local community but are

global experts in the space” -- alumni, philanthropists, and serial entrepreneurs, she suggests. “Allow their network to come to your table so that they can provide advice and counsel on which projects you need to move forward and which you don’t.”

DPM for job creation?

DPM has received high visibility in the U.S. Department of Commerce, which is searching mightily for mechanisms to create jobs. The proposal was cited during a forum on “Catalyzing University Research for a Stronger Economy” hosted by U.S. Secretary of Commerce Gary Locke in Washington, DC, last month. Although university participants welcomed the discussion, they prefer to steer innovations in commercialization toward regional solutions focused around research universities rather than a model such as the DPM.

“There was a lot of talk about best practices, but it’s hard to replicate best practices at Harvard, Stanford, and MIT in Missouri, Kansas, and Alabama,” says Cummings, who attended the forum. “You have to develop regional models. You can’t expect universities to dump everything into a PDC and have alignment. There are great innovations occurring in small regions, but people aren’t looking there.”

Cummings also bristles at the locations for biomedical PDCs -- San Diego, San Francisco, and Boston -- suggested in the proposal. “My personal beef with Kauffman is that they highlight the centers on the East and West Coast where they invest, like Deshpande and von Liebig, but they ignore the flyover regions,” he says.

Coincidentally, the Tucson, AZ-based Association of University Research Parks (AURP) released a white paper addressing the need for regional technology commercialization during a separate meeting with Locke last month. Author **Brian Darmody**, associate VP for research and economic development at the University of Maryland and AURP president, says the 10 steps outlined in “The Power of Place 2.0” (www.aurp.net/more/AURPPowerofPlace2.pdf) are designed to leverage existing commercialization resources rather than reinventing the wheel.

“We put together 10 points that don’t call for brand new bureaucracies but talk about how to tweak existing assets to improve the commercialization system,” Darmody says. “With looming federal deficits, the U.S. has other challenges. We wanted to be practical and specific.”

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Darmody calls the DPM an “interesting” idea that deserves discussion, at least with respect to biotech development. The current system, in which every biotech start-up must develop expertise across all business domains simply to survive, is inefficient, he says. Creating a platform that would use capital more cost-effectively and, perhaps, generate more commercial success stories would assist the mission of university TTOs and boost the nation’s economy.

Roth, who also attended the Commerce Department forum, says the Administration is desperately searching for good ideas to create jobs, “and they don’t have any.” Although he doesn’t necessarily view DPM as the end game for technology commercialization, Roth says it’s time to offer solutions that will generate jobs instead of restating

the problems with the start-up model.

“If we do this right, there will be tons of jobs in the research institutes and among the professional service providers,” Roth says. “And if we produce more products, overall employment will go up because our efficiency will be 60% or 70% instead of 5% or 10%. This is just a completely different way to think about how, as a country, we can move to the next commercialization model.”

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says, noting that his firm works with several universities in Germany that are seeking to commercialize technologies in India.

U.S. TTOs may be starting to recognize the potential of these partnerships. For example, last fall, the University of Florida (UF) signed a Memorandum of Understanding with Sathguru Management Consultants in Hyderabad, India, to make UF technologies available for commercialization through licensing and other initiatives in Asia. Although UF officials declined to comment on the deal, the partnership is designed to leverage UF capabilities in sustainable technologies in agriculture, life sciences, and biotechnology that would benefit consumers across Asia, according to K. Vijayaraghavan, Sathguru’s CEO.

Outsourcing agreements with outside agencies should be structured so that both organizations achieve volume and revenue growth -- not one at the cost of the other, Talwar insists. Despite the opportunity to reduce costs and improve efficiencies, “outsourcing is a tough call,” he adds, advising TTOs to conduct due diligence by taking the following steps before establishing an outsourcing relationship locally or offshore:

- Determine whether your insurance covers a lapse by a service provider -- especially an offshore provider.
- Consider what data will be outsourced and whether you can relinquish control of the information.
- Determine whether attorney-client privilege

issues apply to the outsourced material.

- In offshore agreements, consider export control issues. A foreign filing license from the USPTO does not authorize the exporting of subject matter abroad for the preparation of patent applications to be filed in the U.S.

Define specific commercialization goal

Some TTOs are partnering with outside agencies to achieve specific goals, such as licensing second-tier technologies or targeting certain industry sectors. Last fall, UF inked an agreement with Sterling, VA-based G4i Consulting for government business development services. The goal of the arrangement is to accelerate the commercialization of UF technologies by introducing them directly to government clients and *Fortune* 500 government contractors.

Initially, G4i is creating a dedicated business development “tiger team” to manage five to seven UF portfolio companies, explains **Christopher Stahl**, president of G4i. Each tiger team -- or Gator team, as they’ll be known at UF -- will work with G4i to focus the company’s strategy, business, and marketing plans with the goal of winning multi-million-dollar government contracts over a two-year period.

David Day, director of UF’s Office of Technology Licensing, tells *TTT* that the relationship “is not an outsourcing deal.” Nevertheless, in a statement issued by UF, he adds, “as focused as we are on driving licensing, we’re also seeking out relationships that will set our start-ups on a path for

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success. UF's affiliation with G4i introduces our incubator companies to the largest consumer in the world" -- the U.S. government.

In a challenging economy, the federal government has emerged as one of the largest and most reliable customers for start-ups, Stahl points out.

The company pursues government contracts because they usually entail multi-year, multi-million-dollar projects, offering a predictable revenue stream. As purchasers, government agencies also are more "forgiving" of the challenges that can beset start-ups, Stahl says.

"In the space that we serve, outsourcing is almost essential," he adds, calling the partnership with UF "the perfect marriage." The university's incubator companies "represent the best of the best in emergent technologies, and UF is a known leader in commercializing their intellectual property," he points out. "We hope to build on that foundation of innovation."

A bridge to commercialization

An outsourcing partner that specializes in relationship-building can help university TTOs overcome several key hurdles in the commercialization process, Stahl explains. First, these organizations are more skilled than TTOs at finding experienced entrepreneurs and managers to run start-ups. They're also better equipped to assess the market potential for a given technology. Often, they can help with financing when start-ups leave the "sheltered space" of a university incubator and face the chasm between developing their technology and introducing it into the marketplace.

G4i focuses on four pillars to successful commercialization: people, process, technology, and resources. Five-person tiger teams, comprised of seasoned managers with successful track records in moving products to market, are activated at partner sites for three years. They start by appraising each start-up from top to bottom, including the experience and shortcomings of the management team and business plan.

Next, "we conduct research to determine whether the government market is ready for the technology," Stahl says. "What are the agencies where we would place it? Where is the money flow? How large is the market? And who are the companies presently serving that space?" With those questions addressed, the tiger teams can improve a business plan, work with the start-up on

capturing contracts, and assist with the company's development as it ramps up to fulfill orders. "We provide a turnkey solution" to grow start-ups into going ventures through the government market, Stahl says. Because G4i ultimately wants to propel start-ups toward an exit strategy -- typically, an acquisition or IPO -- it seeks to partner with firms with the potential to generate \$30 million to \$50 million in annual revenues within three years.

G4i contracts are typically on a cost-plus-award-fee basis. When start-ups have their financing in place, G4i simply requires the university to cover its operating costs -- salaries for a five-person tiger team and ancillary costs for IT and equipment -- over three years, followed by a fixed fee through the life of any government contract it helps secure. When start-ups don't have adequate financing, G4i employs an alternative "investment" model, creating a fund that's open to investors and supports five to 10 start-ups through the three-year implementation cycle. Either way, the model is a win-win because G4i earns a fee only when the company helps a start-up to secure a government contract, Stahl maintains.

Segment IP to prioritize outsourcing

In another outsourcing approach, some TTOs separate their disclosures into tiers, concentrating on their top-tier technologies internally while partnering with outside organizations to commercialize the remaining IP. Atlanta-based Fantastic Network Solutions USA recently established a Canadian subsidiary in Fredericton, New Brunswick, Canada, to partner with the University of New Brunswick (UNB) on R&D and to commercialize telecommunications solutions.

UNB, with \$55 million in external research funding, "has some existing technologies they have patented and their expertise ends there," explains **Dennis O'Leary**, CEO of Fantastic. "We pick up the ball where they leave off and bring these technologies to the commercial sector." Like G4i, Fantastic has a variety of contracts with the U.S. government -- many of them global projects with the U.S. military -- so the firm is always seeking new technologies that match the needs of its contractors.

O'Leary met **Chris Mathis**, UNB's manager of knowledge transfer in the Office of Research Services, in 2008 at a trade mission in Chicago. Over the next 12 months, the two discussed commercialization opportunities for UNB technologies that had been sitting on the shelf.

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"Like any university, we're looking for people that have a certain amount of resources and can take a longer-term view of the opportunities for certain technologies -- especially those that are platform-based," Mathis says. He views these partnerships as an opportunity for a reasonably small TTO to offer added value to its researchers.

"At most universities, their expertise ends with the development of a prototype," O'Leary points out. "They don't have much experience in commercialization or creating channels to industry. They bring a technology to the point where it's ready to commercialize, and we take it and run it into the end zone."

Determining which technologies to outsource and which to develop in-house is "a tough call," O'Leary admits. Fantastic works with one university that keeps 70% of its IP in-house. At UNB, O'Leary and Mathis are working collaboratively to assess the university's IP, including related patents and external contracts, and identify the lowest-hanging fruit for outsourcing.

Even in these relationships, "outsourcing" is a bit of a misnomer, O'Leary admits, because UNB remains involved throughout the commercialization process. "Although we may be taking the lead, it's more of a partnership," he says.

However they're structured and whatever their names, these arrangements provide avenues for TTOs to stretch their internal resources -- particularly when IP runs the risk of becoming stale and missing the market altogether.

"Early-stage technologies are likely to evolve more often than not into other opportunities," Mathis points out. By partnering with organizations that can match those technologies to market needs, "tech transfer offices can keep the longer view very clearly in mind."

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Contracting Clinic

Don't assume concessions must be made for withheld indemnifications

By David Wanetick
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A senior licensing executive from a prestigious technology transfer office recently posed the following question to me: "Our TTO is not willing to grant an indemnification to our prospective licensee. In view of this position, to what extent should we discount the value of our licensing agreement? Should we reduce our demands for upfront payments? Seek lower running royalty rates? Waive part of our first milestone payment?"

Upon reflection, I can build an argument as to why no discount need be granted for withholding indemnifications as to title and infringement. While

it is often necessary for licensors to grant representations and warranties, there are a host of strategies to insulate a licensor from financial exposure by avoiding the granting of indemnifications.

Corresponding concessions

First, technology transfer officers should not feel obligated to grant a concession just because the licensee requests one. Instead of making a unilateral concession, you should make corresponding requests for indemnification concessions from the licensee. For instance, the difficulty of providing indemnities becomes crystallized for the licensee when they are asked to indemnify the TTO for any product liability claims. Many licensees also would be averse to indemnifying TTOs for misappropriation of trade secrets. Moreover, you can state that the agreed upon upfront payments, milestones and running royalty rates are less than you would otherwise want, in part, to take into account the fact that there will be no indemnification.

Michael Albert, who chairs the Wolf Greenfield & Sacks Litigation Department in Boston, points out that most businesspeople negotiating on behalf of licensees believe indemnifications are technicalities

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that should be left for the lawyers to contend with. This (mis)perception often is fortunate for licensors because it means the licensee does not focus on indemnification issues in the term sheet. Licensors usually are well served to defer the discussion of indemnification until as late in the negotiations as possible. By that time, there is usually so much in the way of sunk costs and momentum that the licensee will concede on indemnity issues.

The second strategy is to preempt the indemnification issue by demurring to grant representations and warranties on issues of potential vulnerability. This strategy should be somewhat palatable as the licensee has alternative mechanisms at its disposal for addressing the two most frequent indemnifications that a licensor may not wish to grant, which revolve around ownership and freedom of operation. Other permutations of representations and warranties sought by licensees may be easy for the licensor to grant and are rarely a source of contention. These warranties include representing that there are no prior licenses, no future licenses will be granted (when negotiating with a potential exclusive licensee), and that there are no security interests among the affected patents.

Patent ownership issues

As far as the hygiene of patent ownership goes, the licensee should realize if the TTO committed fraud (or inequitable conduct) by intentionally omitting a co-inventor/co-owner, they could be sued for such malfeasance. The TTO should make it clear to the licensee that it is free to ascertain the interaction between the patentee and patent examiner by reviewing the prosecution history at the USPTO's site. There is no reason to indemnify the licensee for any adverse consequences flowing from facts apparent on the USPTO record. (Of course, there is no way for a licensee to know that the inventor withheld some important information from the USPTO. Thus, limited indemnification might be appropriate against claims arising from such facts.)

According to **Eric Lund**, commercialization manager at the Pacific Northwest National Laboratory, "many institutions will provide representations and warranties that assure the licensee that the licensor owns the patent. While these institutions will provide documents that support the TTO's ownership claims if there is litigation, they will not indemnify for legal fees since it is impossible to know when someone will come out of the woodwork to claim that he was an inventor." Many

of these claims lack merit but are expensive to defend. Further, some challenges to patent integrity can be easily addressed -- for instance, by adding a new-found inventor to the patent.

Freedom of operation issues

I do not think any consideration should be granted to a licensee because the licensor will not warrant non-infringement or give a corresponding indemnification. As the licensee typically has greater resources than the TTO licensor, and the licensee has more product information than the TTO licensor, the licensee is in a better position to hire a law firm to issue a freedom of operation opinion letter.

Since the licensor typically does not know all of the end applications that could incorporate its technology (indeed, the licensee does not always know), the licensor cannot possibly be expected to issue open-ended indemnities that no third-party rights will be infringed by the licensee's activities.

Sumita Ghosh, director of the University of Texas-Arlington Office of Technology Management, points out that some licensees take a more measured stance by requesting that the licensors affirm there is no conflicting research occurring within the licensor's organization. But it is reasonable for the licensor to decline to grant even this more limited freedom of operation indemnity since it is impossible to know all of the research occurring throughout a large university system. And looking forward, no guarantees can be made that competing research will not take place: one university campus can't tell another campus what research to pursue.

One way to reduce the risk for the licensee without granting an indemnity is to have the investigator sign off on the license. This should indicate that the investigator knows of no competing research initiatives. Another amenable approach is for the licensor to discuss what other research their organization is pursuing. Some of the further research could complement the patents currently being licensed and could eventually be licensed to the licensee in question.

Yet another alternative frequently employed is for the licensee to try to extract from the licensor a representation and warranty that the license encompasses all rights it owns (including future rights) that are needed for the licensed products to be made. The idea, of course, is to prevent the licensor from later seeking to extract a second payment for a license to other patents. But in the case of universities, it can be problematic to grant such warranty because to do so

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might unknowingly violate an exclusive license to another licensee; in that case, the licensor might agree to offset royalties.

If the licensee balks and claims that the cost of obtaining a freedom to operate opinion letter will break the deal, you can always reduce the cost of the license by all or part of the \$30,000 to \$50,000 that such opinion letters typically cost to produce.

Carve-outs and concessions

Some aggressive licensees insist on language assuring that, in the event of litigation or reexamination, royalties will be placed in an escrow account so those monies can be returned if fraud is proven.

Other licensees may push for a provision that calls on royalty payments to be reduced by a predetermined percent of legal fees expended in connection with patent quality challenges or defending against accusations of infringement. As a fallback position, when deals really may crater unless the licensor makes some compromise on indemnities, I recommend taking the following steps to reduce exposure:

- State universities and government research organizations should avail themselves of sovereign immunity laws which limit the liability for such institutions. Thus, any indemnity granted should specifically state that the indemnity is limited as per (state) law.
- Instead of stating that there is no infringement, the licensor can represent that it has no knowledge of any patent infringement.
- Restrict the scope of the warranty to infringement in specific countries.
- Limit the extent of any indemnity payments to a percent of royalties received.
- Set time limits for indemnities.
- Restrict the indemnity to proven claims and claims settled with consent since so many infringement suits are commenced for competitive reasons rather than on the actual merits of the patents involved.
- Any indemnity should become invalid if the product is improperly used, maintained or repaired or if the product was improperly combined with another product.
- Finally, consider structuring indemnities as thresholds or baskets. Thresholds hold that, once damages reach a threshold, the indemnitor is required to pay the indemnitee for the first dollar of damages and every dollar thereafter. If the indemni-

ty is structured as a basket, the indemnitor is only liable for damages in excess of a ceiling.

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Productivity and staffing

Use interns, community resources, and teams to rev up your TTO

A familiar refrain among technology transfer personnel is that there are simply not enough hours in the day to work up technologies, reach out to potential licensees, and jump through all the hoops necessary to get deals done. **Louis Berneman**, who directed the Center for Technology Transfer at University of Pennsylvania, from 1995 to 2005, and now heads Texelerate, a Philadelphia-based technology transfer consulting and development-stage IP trading company, stresses that the most efficient TTOs are organized so that personnel are focused on what they do best. "I'm still seeing offices organized around 'cradle to grave' tasks, which makes no sense except for one-to-two person offices," he says.

A better approach for large offices, according to Berneman, is to develop groups of people with aligned interests to work in teams. "This brings different perspectives and backgrounds to a situation, and is consistent with current thinking about knowledge management and knowledge creation," he says. "It results in better decisions." This sort of arrangement also establishes an infrastructure where talented individuals who are new to technology transfer can learn from veterans.

Berneman says he used to find the best candidates for these junior-level positions among medical school graduates who had decided not to go into clinical practice, but rather pursue a business degree, or PhDs who had concluded that a career as a researcher was not for them. While such individuals require a fair amount of handholding at first, they can prove highly valuable to the organization, says Berneman.

"They understand the academic setting, they relate well to faculty who are typically scientifically

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oriented, and if you find people with good interpersonal skills, they tend to be very good at the beginning of the process," he says. "This includes working with faculty to develop, identify, and define discoveries and opportunities; doing the triage, analytical work in terms of determining technical merit; and then they obviously need to be taught intellectual property basics so they can start doing those initial prior art reviews."

Develop systematic internship program

Another key to improved productivity, particularly in the current economy where adding staff is rarely an option, is establishing a finely tuned internship program. The Office of Technology Commercialization (OTC) at the University of Texas (UT) at Austin has a well-oiled internship program in place that experienced licensing associates can rely on for administrative support.

"Without the interns, there is no way I would be able to look at the number of technologies that I do, let alone have the time to market them," explains **Ray Atilano**, MS, PhD, a licensing specialist at UT who oversees licensing interns.

However, Atilano emphasizes that finding suitable candidates for the program is essential, and this is where UT's prescreening system plays an invaluable role.

The first step in the process at UT is a challenging homework assignment that all intern applicants must complete. It involves selecting a particular technology from the OTC website, and then explaining who would be interested in the technology. In addition, the candidates must demonstrate how the technology can best be described in simple science and business language, says Atilano. "Then we ask them to take a look at one of our patent license agreements, and establish some of the milestones [for the technology]," he explains.

The homework assignment is a great prescreening tool, explains Atilano, because it automatically weeds out candidates who aren't truly interested in technology transfer or aren't willing to work hard in pressure situations. "They have three to four days to get the homework assignment turned around. There is a sense of urgency," he says. "They have to answer all these different questions without even knowing a lot about what we are doing, and we haven't even given them an orientation yet, but we are trying to see how good

a fit they will be from the get go."

Write down the particulars

By the time the intern candidates come in for in-person interviews, the OTC already has a pretty good idea from the homework assignments about which individuals are self-starters who would work well in the office. The selected candidates then begin a three-week training program that is so well-established at this point that veteran interns actually play a strong role in mentoring the new players on how the office works, how to use various library tools, and other basics.

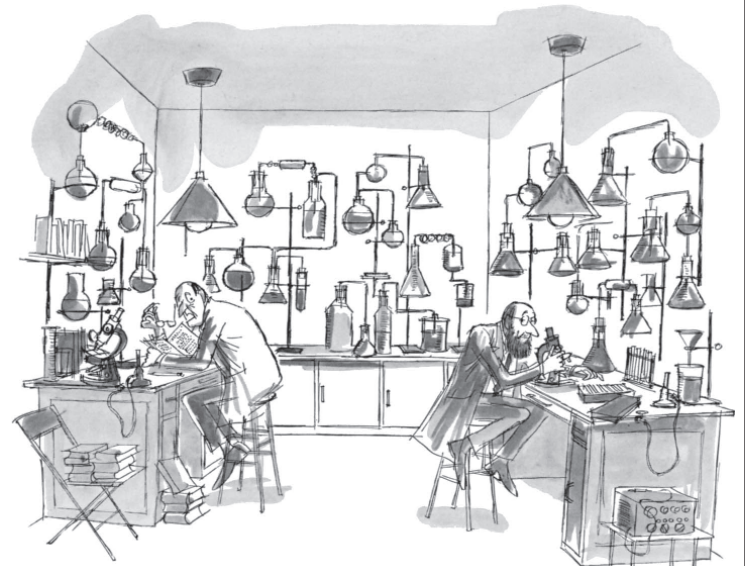
When the interns complete their training, they then begin to field many of the early-stage tasks that go into commercialization including:

- business and competitive analyses of new technologies;
- lead generation for potential licensees;
- preparation of marketing materials;
- scheduling of interviews and meetings.

The interns are asked to make a commitment to the OTC of at least two semesters, and most tend to work about 15 hours per week, says Atilano. The number of interns working in the OTC peaks at about 30 during the summer months. Some of the positions are paying jobs while others are completed for class credit.

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License to Laugh



"I see by the current issue of 'Lab News,' Ridgeway, that you've been working for the last twenty years on the same problem I've been working on for the last twenty years."

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Leverage community resources

In addition to freeing up experienced licensing associates so that they can focus on making deals, interns can also be an excellent source of new personnel, according to **Miette Michie**, MS, the interim executive director and CEO at the University of Virginia Patent Foundation (UVPF) in Charlottesville, VA. "We have hired many of our former interns, so it is a good way for us to see folks who are looking for a career in tech transfer," she says.

The interns at UVPF usually spend their time assisting licensing associates in looking for contacts at companies that are potential licensees, doing prior art searches, and preparing market analyses. This frees up the more experienced licensing associates to spend more one-on-time with faculty inventors, which is a priority at UVPF.

Michie also has three employees on staff to handle all the largely administrative tasks associated with commercialization. These include a licensing assistant who logs in all invention disclosures, and two licensing paralegals who make sure that all the signatures and other formalities associated with an invention disclosure are taken care of. "These things help a lot with efficiency," she says.

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TTO budgets are notoriously skimpy -- and economic conditions haven't helped, to say the least. Many offices are struggling to operate effectively with fewer resources, and cost-cutting has gotten its fair share of attention by most. But there is another way to stretch your TTO budget that takes the opposite approach: adding resources and dollars from industry collaborators.

The fact is that, even without specific IP, many well-heeled companies want to be on your speed dial and develop relationships with the university, hoping to be first in line for critical new technologies and anxious to get a glimpse at what's going on behind the laboratory doors. For cash-strapped TTOs, these companies can be a wellspring of needed resources and funds beyond the typical licensee or sponsored research relationship. What's more, these relationships often lead directly to future licensing deals, bringing even more benefit to your tech transfer program.

To help you tap into these industry resources and funds, *Technology Transfer Tactics'* Distance Learning Division has partnered with a TTO executive who has made it his mission to offset tight money constraints by forging corporate partnerships and utilizing industry funding to further the office's aims and bolster its budget. **Mike Rondelli, Director of Technology Transfer and Commercialization**, has successfully led **San Diego State University's** TTO to consistent high performance in the ratio of research dollars spent to licensing revenues earned.

Find out how SDSU's secrets of success by joining us on April 8th for a 90-minute distance learning event that will offer first-hand advice on how to offset tight budget constraints by forging partnerships, utilizing industry resources, and more.

Your expert presenter, Michael Rondelli, will reveal his experiences, successes and failures coupled with examples of how his TTO has bolstered its budget by tapping into a wealth of industry partnerships, resources, and funding opportunities. He'll discuss:

- How to find and approach the right people within the targeted industry
- Strategies for making your TTO the "go to" resource in the minds of faculty and industry
- Tapping into a rich industry financial vein to support research, contests, start-up ventures, and other TTO activities
- Building internal bridges with your grant and sponsored research departments, and using their expertise to ferret out funding for your department
- How trust-building efforts with faculty can lead to better industry ties
- Addressing conflict-of-interest challenges
- Breeding an environment where faculty sees the value of the TTO and industry relationships
- Bringing the student population into the mix
- Effective PR, outreach and marketing techniques that keep you top-of-mind with industry
- Metrics to support your position as a worthy industry ally
- And much more!

(Over, please...)

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Your Expert Presenter

Michael Rondelli, Program Manager, Technology Transfer

Michael Rondelli is the Director of Technology Transfer and Commercialization, responsible for the protection and commercialization of technologies developed at SDSU. He serves SDSURF through the patenting of inventions developed by SDSU faculty, analyzing the commercial values of those inventions, and developing licenses and spin-off companies that utilize those technologies. Additionally, he provides assistance in securing research grants for the continued development of technologies on campus. Prior to joining the Research Foundation, Rondelli worked in the venture capital industry in New York as a specialist in business and strategic development. His experience includes acquisitions of public and private companies, purchasing companies from bankruptcy, business plan development, raising multi-million dollar venture capital rounds, and building marketing/sales teams. Venture funds he has worked for include Venture Credit, ICES Ventures and Iron Street Labs. Rondelli is an active member of the Association of University Technology Managers, the Licensing Executives' Society, Bio, Biocom, San Diego Venture Group, Security Network, and the Software Industry Association. He also provides expertise in new company formation and business development to the Spin-Out Committee of the Center for the Commercialization of Advanced Technologies. Rondelli earned his juris doctorate from the University of San Diego, his master's degree in business administration with an emphasis in finance from Texas Christian University, and his bachelor's degree in marketing (with honors) from Washington University in Saint Louis.

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