

Technology Transfer Tactics™

The monthly advisor on best practices in technology transfer

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Special Focus: Women in Innovation

Realizing potential: Keys to nurturing female-led innovation

Female participation in innovation and technology transfer activities is becoming a spotlight issue at many universities, thanks in part to the forward-thinking women leaders participating in the Association of University Technology Managers' Women Inventors Committee (AUTM WIC). "Female faculty members are one resource that every TTO has," says **Jean Baker, JD, PhD**, a partner and patent attorney in the Milwaukee office of Quarles & Brady LLP. "Getting those faculty to participate in innovation allows TTOs to make the most of their resources. A lack of female inventors and entrepreneurs means that a university is leaving exciting technologies and great opportunities for revenue sitting in a drawer."

Bringing women faculty into a university's innovation

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Don't accept equity dilution as inevitable with university start-ups

Dilution of the university's equity is sometimes seen as an unfortunate but inevitable part of the start-up process, with any efforts to mitigate the dilution bringing their own risks of scaring away investors. That's not the only way to look at preserving your equity, however, and some TTOs are taking a more proactive approach to keeping their share of promising companies.

Anti-dilution provisions were a typical part of license negotiations when **T. Allen Morris** was director of technology transfer at the Virginia Commonwealth University (VCU) in Richmond. He's now in that position at the University of Louisville in Kentucky. If a company was not willing to accept an anti-dilution clause, VCU would negotiate for a higher equity stake instead, still pursuing the goal of preserving the school's long-term stake in the start-up.

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Engage in customer discovery to ensure innovations have a ready market

Ensuring that your TTO's innovations have a market to sell into is one of the most critical challenges in managing your IP portfolio. Getting assurance that a product or start-up will find enough customers -- or alternatively finding that a ready source of eager customers does not exist -- helps ensure you're putting your eggs in the right basket and using limited resources on the best chances for successful commercialization.

An increasing number of TTOs are finding that, to gauge the market, they must engage in a customer discovery process -- an effort now being undertaken regularly by the Auburn University's TTO. Auburn is using a modified customer discovery process to determine who might buy a product that results from the innovation, as well as how much they're willing to pay for it. As **Doug Warrington**, director of business development in Auburn's Office of Innovation Advancement and Commercialization, points out, the process helps propel some discoveries on a better path to commercialization -- and it helps kill others that just don't have a market.

Essentially, customer discovery is simply getting together with actual potential clients, face-to-face, for a long enough meeting to glean deep details about the customer's needs, wants, and willingness to pay. In a structured customer discovery process, a team will try to talk to 100 potential customers in six weeks. Auburn started implementing that process last summer by sending six teams, armed with six different ideas, to a formal Startup Gauntlet course, based loosely on the National Science Foundation's I-Corps model.

The "course" approach -- sending just a hand-

ful of hand-picked potential technologies through the Gauntlet all at once -- worked so well that IAC is now considering ways to implement it on a more regular basis. "We have not yet built the customer discovery process into our standard invention review process," Warrington comments. "But we are trying to find a way to do it."

Borrowing from I-Corps

The move to customer discovery began three years ago, when IAC hired Warrington as its first director of business development. "I was charged with increasing start-up activity through and around the university," he says, "not only with university technologies, but also for local entrepreneurs." Early on, he adds, "we became aware of the I-Corps model, and along with that the business model canvas and customer discovery approaches popularized by Steve Blank."

The I-Corps is a set of activities and programs that prepares scientists and engineers to extend their focus beyond the laboratory; participants are expected to identify the core of their business model: their customer segment and value proposition. Conversely, they may discover there isn't one. "That's OK, too," the Startup Gauntlet website states. "Better to find out now than after spending years and a fortune only to find out you were wrong." I-Corps also borrows heavily from Blank's lean start-up methodology, which stresses rapid development of a minimum viable product and frequent pivots or product iterations based on direct customer feedback.

After learning about the I-Corps model, Warrington participated as a mentor on an Auburn I-Corps team. During that process, he "became a strong advocate for the model," he says, "which has been shown to be very powerful in shortening a path to commercialization, and I began looking for

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Customer discovery continued from p. 66

ways to bring it to Auburn.”

Working with Georgia Tech, the Auburn TTO hosted Paul Freet, an Atlanta entrepreneur and I-Corps instructor, to teach a course known as the Startup Gauntlet. “It’s touted as a bootcamp for entrepreneurs,” Freet explains. “It’s a six-week, instructor-led, evidence-based course focused on customer discovery and business model canvas concepts.” Freet and others offer the class around the country, typically involving small teams of entrepreneurs looking to form a company around an idea.

During the six weeks of the course, teams have a goal of contacting at least 100 potential customers, preferably in person, and asking key questions. “This helps to determine who the customers really are, if there are customers,” Freet notes, “and if the team needs to pivot its business model to seek out the actual customers.”

Intern power

The twist, he points out, is IAC didn’t send teams of entrepreneurs to the course, or faculty who were considering taking that path. “We brought our interns,” he reports. “Each intern was allowed to pick a project from our internal short list, then had to create a team using non-interns to take the course.”

He adds: “There was no significant chance that these students would ever go form a company around one of these ideas. So why go through something called a Startup Gauntlet boot camp if the attendees don’t plan to take that path? For two primary reasons. It serves as an outstanding educational course for the students. The amount they learned about bringing products to market in less than two months was remarkable. And the information our office gathered on the technologies was incredibly valuable for evaluating, prioritizing and marketing projects going forward.”

Auburn’s IAC typically has half a dozen or so interns for its summer program, which is overseen by the team of Warrington; **Brian Wright**, PhD, associate director for commercialization; and **Troy Brady**, PhD, the technology transfer officer for life sciences. Last year, six interns “went through the Gauntlet,” Wright reports. This year, the school brought on eight interns, seven of whom are expected to go through the Gauntlet. “We hire them from across campus,” he adds, “typically with engineering, science and/or business backgrounds. Ideal candidates have some exposure to a technical field as well as business training.”

Of last year’s six intern-led projects, three were killed by the end of the class, including “one project that our office had kept active for over five years and about which the lead student was particularly excited and optimistic at the start of the course,” Wright adds. Another one was aimed at solving a problem that potential users weren’t that concerned about, as revealed in the customer discovery process. “There simply weren’t enough customers to warrant going forward,” he says.

A fourth was effectively killed because, despite customers being identified, they were only interested in a price point that wasn’t achievable.

The other two intern-led projects fared much better. The first, Wright points out, was for a tool for use in the construction industry. The Gauntlet team pursued several different potential user bases and had difficulty finding traction, he says, “but they kept working through their 100 interviews, and eventually found key market potential in areas that were not originally envisioned.” Some follow-on work during the next semester helped solidify the information.

In an unrelated event, Wright adds, “we were contacted by an outside group about the invention just a few months ago. The information learned in the Startup Gauntlet allowed us to have an informed discussion with this group that really helped engage them in the technology, in large part because we were able to speak with confidence about where we thought the market was.” A license agreement was recently executed.

The final project was, Wright says, “the clear winner of the summer:” a lumbar belt designed for drummers. “The efforts of the group clearly established the market and who the customer would be -- and even pointed towards likely price points,” he says. “The intern for this project stayed on during the school year and significantly advanced the project, even going to a pair of conferences to collect confirmations of interest from numerous potential customers.”

The same intern also met an Auburn marching band alumnus who became the licensee for the product. “Again, being able to engage that person with real information about the market and a proposed business model was incredibly powerful in the initial discussions,” Wright comments.

Customer feedback informs inventors

At the same time it sent teams through an external Gauntlet, IAC worked internally with a team of interns to perform its own customer discovery process

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ecosystem isn't a high-cost proposition, she says. "It doesn't take a big up-front investment to generate a big pay-off. Women will step up, become inventors, and start companies when TTOs lay the right entrepreneurial framework."

In addition to being good for individual universities, involving more women "is for the good of all of us," says Baker. "It's for the societal good that we have these companies developed."

AUTM WIC is leading the charge by encouraging TTOs nationwide to track gender data to gain a better understanding of how women participate in innovation and determine best practices for increasing female involvement. While that research remains ongoing, Baker and two other committee members

shared the following insights that can assist TTOs in developing female inventors and entrepreneurs:

- **Build a nurturing environment.**

Creating a comfortable environment that encourages women faculty to feel more confident should over time make them more willing to take the risk of being innovative and entrepreneurial, says **Linda Suzu Kawano**, PhD, RTTP, principal of the Chicago-based consulting firm *GroupOptima* and a former TTO director. (*Learn about how a lack of confidence and other barriers impact women, below.*)

"Environment is a critical factor," says Kawano. "Most faculty -- men and women -- don't feel that interested in or even comfortable filing an invention disclosure. For some it can be a risky endeavor and, as such, less conducive for women. On its own, an

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Special Focus: Women in Innovation

Innovation barriers: What's stopping women?

"Women faculty members are already developing technologies -- they are exactly on par with their male colleagues in this sense," notes **Jean Baker**, JD, PhD, a partner and patent attorney in the Milwaukee office of Quarles & Brady LLP. "Why aren't they going to the next step? TTOs need to acknowledge the barriers women face so that they can find ways to address them."

The exact reasons why women often don't participate in innovation and technology transfer "may be different for each female," says **Nichole Mercier**, PhD, associate director of the Office of Technology Management (OTM) at Washington University in St. Louis. However, certain barriers seem to be fairly universal:

- **Gender bias.** "An overt bias against women is extremely rare in tech transfer, so we don't need to finger-wag and tell TTOs to mend their ways," stresses Baker. "However, there still seems to be a statistical problem, which suggests a more subtle, unconscious bias is creeping into tech transfer decisions. In addition, multiple studies have shown that gender bias isn't just a male problem. Both women and men tend to have a gender bias, and identifying it in ourselves is hard for us all."

Tackling the issue of gender bias is critical because evaluating technologies based on nonobjective criteria can have a negative financial impact, says Baker. "For example, many studies have shown that just the identification of a particular piece of technology as coming from a woman can bias anyone, male or female, about its commercialization potential."

- **Lack of confidence.** Innovation involves risk-taking, says **Linda Suzu Kawano**, PhD, RTTP, principal of the Chicago-based consulting firm *GroupOptima* and a former TTO director. "Being innovative -- looking for commercialization opportunities in their research, submitting invention disclosures, filing patents, licensing their intellectual property or starting a company with it -- takes faculty members outside of their box. These are risky endeavors in the standard academic setting, which is geared toward doing basic research,

teaching students, and writing grants. If people don't take risks, they're not likely to invent or commercialize."

Confidence allows people to be comfortable with risks, says Kawano. "If you don't have confidence, you're not going to take risks. Recent literature (e.g., *Lean In* and *The Confidence Code*) points to women being less confident than men across the board. Women then, being not confident, are less likely to want to take risks."

"Time after time after time, women underestimate their own capabilities vs. an equivalent group of men. A plethora of studies in books like *The Confidence Code* show this to be true," agrees Baker. "So even with no real substantive difference, men are much more comfortable on average being aggressive and assertive about pushing their technology. That comfort level matters when you're talking about people being entrepreneurs."

Also, many female faculty members who seem perfectly placed to be entrepreneurs because of the nature of their technology often aren't comfortable taking on multiple roles at the same time, such as being an entrepreneur in addition to being a researcher and all of the other roles they have, says Baker. "Working in a law firm, I see this all the time: Successful women know what they do to be successful, and they can be very uncomfortable interjecting a new, unknown role into the mix."

- **Multiple time commitments.** Many women are more careful than men with their commitments. One common reason is that family is a constraint for many women, says Mercier. "Women often take on the caretaker role, whether they are caring for young children or parents. Being the CEO of the household can be an impediment to innovation."

Another issue in male-dominated fields is "the female tax," she points out. "When there are significantly fewer females in the department but a female is needed for a committee, the same woman gets tapped time and time again, which can drain her time. This doesn't happen to male counterparts because more of them are available to participate." ►

invitation to attend a formal presentation about IP rarely hooks people. When TTOs send out an e-mail blast or post notices inviting people to a Patenting 101 or Tech Transfer Basics educational seminar, the general turnout can be poor."

Developing the right environment will help TTOs implement many of the foundational steps that should be a part of any program to increase the participation of women, says Baker. (See *checklist of five barrier breakers, below.*) Some options include the following:

-- **Offer periodic video showings that highlight innovators and risk-takers.** "There are many such videos that are suitable to be shown in a group setting on campus," says Kawano. "For example, the PBS show 'MAKERS' is a wonderful documentary series about American women who have innovated in fields that were traditionally closed to females."

These sessions should be moderated and interactive, suggests Kawano. "There should be a framing of the topic and then a discussion after the video showing, allowing the audience to be part of the discussion. In some cases, panels of commentators, chosen based on the topic of the video, might have a post-video discussion with the audience. This could be done -- easily and at a relatively low cost -- to help set the stage for women to be comfortable thinking about innovation in the context of their work."

-- **Hold an "inspirational innovators" speaker series.** Depending on the target population, speakers should include female and male professionals at the early, middle, and late stages of their careers. But make very sure the speaker truly is inspirational, Kawano suggests, or the event could backfire. "TTOs need to dig down deep and determine whether a proposed speaker is someone who can inspire, promote thought, and encourage people, especially women, to be more courageous in their own activities," says Kawano. "A speaker needs to be dynamic and engaging."

-- **Offer workshops on entrepreneurial basics.** "TTOs should consider conducting workshops in confidence-building, leadership, management training, and effective communication," says Kawano.

Such classes could be offered on an individual basis or provided in intensive group sessions "like a mini-boot camp," suggests Baker. "This is a quick way for TTOs to show women that there is more than one path to entrepreneurship. The person who puts in 100% of her

time is just one model. It can be done at all levels and in all ways." (See *Washington University in St. Louis' take on the intensive approach, page 71. Also learn about the University of Florida in Gainesville's program in "Address the Challenge of Finding Start-up CEOs by Focusing on Women," in the March 2013 TTT, page 46.*)

-- **Use online social media resources.** TTOs can use FaceBook, Twitter, and other social media venues to build and sustain community, says Kawano. "Another option is a blog promoting innovative and entrepreneurial women."

-- **Drop the formality.** Informal social events that bring women together face-to-face to talk and exchange stories can help build community and be a springboard for networking activities, says Kawano.

Cast a wide net

• Don't ignore women in creative fields.

While women in STEM fields will be the primary target for most TTOs, don't ignore the potential of women in more artistic fields and the so-called softer sciences who might produce creative works, suggests Kawano. "For example, this could be expanded to include women who might produce copyrightable intellectual property."

• Ditto for men.

"It's important to get across the message that this isn't just about women," says Kawano. "Men have a lot of experience to share regarding their working in workplaces dominated by male leaders. In addition, men as well as women may benefit from some of the programming as well. Consider inviting men to participate in events that are gender neutral."

• Find a "product champion."

A strategic effort to involve more women facul-

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Checklist for encouraging women innovators

The Barriers Subcommittee of the Association of University Technology Managers' Women Inventors Committee (AUTM WIC) has identified five mission-critical objectives that TTOs should incorporate into any program to "move the needle" and bring more women into the innovation fold, says **Jean Baker**, JD, PhD, a partner and patent attorney in the Milwaukee office of Quarles & Brady LLP. These five barrier breakers are:

- Develop a community of women innovators.
- Create a community of male and female mentors.
- Promote confidence building.
- Offer leadership and management training.
- Provide guidance and training on effective communication.

ty in innovation “isn’t likely to succeed without a ‘product champion,’ who typically will be a woman who feels passionate about encouraging female inventors and is willing to step up to drive the project,” says Kawano. “But no one can succeed, regardless of how passionate they are, if their boss or the organization does not support the activity. The leadership of the office has to be encouraging of this process.”

If the TTO management’s support is tempered by resource concerns, one option might be to connect the product champion with other interested parties on campus, says Kawano. “For example, female or male faculty members in the business school might be willing to lead the effort with some support from tech transfer.”

- **Scour the campus for resources.**

“TTOs should look within before they start looking outside,” suggests Kawano. “You want to look at the resources you have and build upon those for any program, whether it’s for women only or to encourage all inventors. Bringing someone in from the outside when you don’t have to is not only a waste of resources, it’s a sure-fire way to breed resentment among on-campus experts who desire to make your institution a better place.”

While the business school is an obvious first stop, “TTOs also should think outside the box about who may be able to inspire and teach on these topics,” she says. “For example, sociologists and psychologists who are studying business-related issues may have insights to offer about leadership and management.”

- **Look for synergies in the community.**

“TTOs should outreach and look for groups in the community that have a similar focus in terms of encouraging women,” says Kawano. Entrepreneurial-focused women’s business organizations, such as Women in Bio, are one option. “Different organizations will have a specific programming focus, but TTOs may have opportunities to tie into these outside organizations to gain education, support and networking opportunities for female faculty members,” she explains.

There may also be opportunities to work with other universities, says Kawano. “For example, if you hired a well-known speaker to inspire women to participate in entrepreneurial activities, you could video-conference the event across campuses and universities, splitting the cost and reaching out to a greater audience.”

Not one size fits all

- **Know your target population.**

“Involving female faculty in innovation and commercialization activities isn’t one size fits all. TTOs have to know the populations they’re targeting with any educational offering,” says **Nichole Mercier**, PhD, associate director of the Office of Technology Management (OTM) at Washington University.

For example, promoting successful women entrepreneurs as models for female faculty “can be a useful program component, but it’s not a panacea,” says Baker. “Some women faculty members don’t have enough base knowledge in innovation to accept women entrepreneurs as role models. People don’t connect with role models until they’re ready to connect with them.”

TTOs that have diverse populations in their target group have to choose a path, says Mercier. “First decide whether you want to break out those populations for targeted education or have a mixed group,” she suggests. “For example, do you want to

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Resources on women inventors

- AUTM Women Inventors Committee background and goals, gender tracking resources for TTOs, and other information, including access to the committee’s presentation at the 2015 AUTM annual meeting and synergistic resources, such as a Google Ventures presentation on pushing past unconscious bias at work to enable analytical decision-making:

www.autm.net/AUTM_Women_Inventors_Committee_WIC_/15004.htm

- AUTM Women Inventors Committee membership list:

www.autm.net/source/committees/#WomenInventorsCommittee

- *The Confidence Code: The Science and Art of Self-Assurance--What Women Should Know*, Katty Kay and Claire Shipman, HarperBusiness, April 2014: <http://theconfidencecode.com/>

- *Lean In: Women, Work, and the Will to Lead*, Sheryl Sandberg, Knopf, March 2013: <http://leanin.org/>

- TTO managers and staff can test their own implicit biases about gender, race, and other characteristics: <https://implicit.harvard.edu/implicit/index.jsp>

- “MAKERS: Women Who Make America”: www.pbs.org/makers/home

- National Association of Women Business Owners: <http://nawbo.org/>

- Women in Bio: www.womeninbio.org/

- WEST: Advancing Women in the Enterprise of Science & Technology: www.westorg.org/

- Women 2.0: <http://women2.com/> ►

educate junior faculty members separately, or have junior faculty mixed into the same educational group as tenured professors?"

- **Try staggering education.**

TTOs that choose to educate a mix of populations at once "need to figure out how to reach everyone in that group," says Mercier. "You probably should stagger your education since they will be at different stages. For example, certain faculty members who have never been involved in commercialization before will need to be handheld through it. Other faculty have already submitted an invention disclosure so they understand something about the process, but now how do they make connections? You have to tailor."

- **Time it well.**

The timing of either formal or informal events should consider the needs of the target population, says Kawano. "Generally, lunch events are more difficult to arrange in a university because people have to stop what they are doing in the middle of the day and possibly travel across campus to attend. So, a breakfast event might work out better or a late afternoon event might be easier."

- **Anticipate the texting effect.**

"Many faculty members in the STEM fields could benefit from learning how to speak to nonscientists," notes Kawano. "Younger people may be shier about stepping forward. While there may be a generational aspect to that, Generations X and Y are on the average more comfortable communicating electronically. For example, they tend to prefer texting rather than talking. Consequently, younger people may need additional help learning how to effectively communicate face to face."

- **Plan for the future.**

When TTOs do targeted education for female faculty, some faculty members will decide innovation isn't for them, says Mercier. "However, you will reach some who want to be connected into this and learn more. So TTOs need to think about downstream: What happens after the program ends? For example, we're looking at the possibility of working with clusters of three to five women faculty members at a time to help them drive their ideas forward."

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Special Focus: Women in Innovation

Washington U puts women innovators on the fast track

The Office of Technology Management (OTM) at Washington University in St. Louis just completed its second annual Women in Innovation and Entrepreneurship (WIE) event, an education and networking series that builds the commercialization knowledge and skills of women, who are traditional innovation underperformers at universities nationwide. "With departments trying to hire more women, we have to understand that we might need to reach this population in a different way because of whatever issues they are managing," says **Nichole Mercier**, PhD, associate director.

"The literature indicates that if we can find a way to get women up to speed quickly, we can even the playing field and equalize participation in innovation activities," she points out. "WIE is designed to lower the bar so women can figure out how to make this work within their confines."

The OTM began looking at female faculty members' participation in commercialization activities sev-

eral years ago when the Chancellor decided to make innovation a pillar of the university. Initial research found that women faculty submitted significantly fewer invention disclosures than male faculty, and the disparity accelerated the deeper into the tenure process men and women got, says Mercier.

"However, when we look at invention disclosures and applications to our translational research fund [the Bear Cub Fund], we see really quality ideas come out of our female population," she notes. "In fact, although we see far fewer applications from female faculty to the Bear Cub Fund, the award rate is equal between males and females."

The data also showed that women at Washington University are much less likely to be serial creators (i.e., people who submit two or more invention disclosures) than men. "Further, female serial creators submit noticeably fewer total invention disclosures than their male counterparts. For example, our highest female serial creator sent us eight disclosures over the same time period that her male counterpart submitted 46," says Mercier.

So in addition to increasing the sheer number of women participating in innovation, WIE also

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hopes to encourage growth in women faculty “submitting multiple disclosures and engaging this process multiple times like we see in the male community,” says Mercier. “Creating a subpopulation of serial creators within our female faculty is important, because they will serve as innovation leaders or spokespeople within their population at the university to increase activity in this area.”

Laying the groundwork

To start the process, the OTM applied for and received a grant through the Office of the Provost. Staff then conducted focus groups to assess the educational needs of female faculty members at both Washington University’s medical campus and its Danforth campus, which has the chemistry, physics, and biology departments.

“At first we treated each campus separately,” says Mercier. “In each focus group, we shared the general statistics we had gathered and then asked questions that revolved around ‘Why do you think women in your field do or don’t participate in innovation and technology transfer?’”

Responses differed significantly between the two campuses, says Mercier. For example, the women in the medical school were aware of male faculty members who grew networks and built companies. However, despite a sizeable presence of female faculty in the department, they never saw women (i.e., “any of us”) participating in innovation and entrepreneurship.

“So they wanted to be able to see, ‘How does a female faculty member who looks like me, talks like me, and thinks like me do this?’” she says. “However, that was less of a focus on the Danforth campus where there are so few women faculty that they felt they were swimming with the men and should demonstrate their capability with or without female role models.”

Launch-year program design

The 2014 launch-year WIE program was a four-part series consisting of two seminars and two workshops, all occurring in mid- to late-afternoon Friday sessions from January through March. “Overall, the education was designed to define the very basics of the language involved in this field, and to bring in people from the community who could help participants think about their work in

terms of innovation -- how to translate research into commercialization opportunities such as a start-up,” explains Mercier.

The first session was a seminar, Gender Impact on Inventing and Building Commercial Networks. “The kickoff seminar reviewed the lay of the land: Why don’t women participate in innovation and entrepreneurship?” says Mercier.

Within each of the seminars, “we brought in a female faculty member who was both an entrepreneur and still at her academic post to talk about how she started her company: What did she have to do? What challenges were there for her? Did being female present specific challenges?” she notes.

Two workshops followed the lead seminar. The first, Inventing in Academia, covered patenting and tech transfer. “On the patenting side, we addressed core questions, including: What is a patent? What does it mean when you get a patent? What type of work do you have to put in as a faculty member to obtain a patent? In other words, your TTO may do a lot of behind-the-scenes work, but there is still work that you need to do and what does that look like?” explains Mercier.

The tech transfer part of the first workshop also took a ground-floor approach, reviewing such questions as: “How does our tech transfer office work? How do we evaluate and triage invention disclosures? How do we make decisions? How do we make secondary decisions after we have filed the patent to continue with them? How do we license?” she says.

The second workshop, Commercializing Academic Inventions, tackled “next steps once faculty members have an invention, addressing: How do you get your invention outside the university? What is a license agreement? What is translational funding, and what translational funding is available for you as a faculty member? Who are investors and what role do they play in commercialization?” says Mercier.

In this workshop, “we also brought in a female CEO from one of our successful start-up companies to speak to participants about what happens when you have an invention at this stage and it gets licensed,” she says. “The CEO delved into the differences between what the inventor did up until that point and what the company has to do to get the invention out and make it a product.”

The closing seminar, Building and Empowering Women Entrepreneurs, featured another faculty start-up founder who actually launched a company

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in St. Louis. In addition, a new St. Louis-based group called Prosper Women Entrepreneurs, which includes a nonprofit training/mentoring arm and a for-profit arm that works on early stage funding, gave a presentation about the group and how faculty could participate. "We wanted to get our participants networked in there, and several attendees did get further support through that group -- and at least one is starting a company," Mercier reports.

WIE was designed to provide networking opportunities, as well as education. "The networks of female faculty often aren't as deep or as fruitful as the networks of their male counterparts," says Mercier. "So we built in hour-long networking events at the end of each session, inviting both internal and external commercialization contacts, to allow participants to meet people in the community and to lower the bar for them when they think about starting a company or getting their innovation to a point where it's attractive to a licensee."

Twenty-seven women faculty members attended the first WIE program series. "We didn't want more than 30 participants in the first class so we could start small," says Mercier.

Tweaking the program

In addition to conducting brief before-and-after reviews of the 2014 participants' experience, the OTM reached out and did follow-up telephone interviews with a number of attendees, which led to some changes in the 2015 line-up. First, the OTM opened WIE to female post-docs as well as faculty.

"We added post-docs because there is a good dialogue between faculty members and post-docs," say Mercier. "And if someone is going to leave the university and start a company, it is more likely to be a post-doc than a faculty member."

This year's WIE event, which ran January through April, also expanded to include five sessions instead of four. The kickoff seminar, Engaging Female Faculty in Commercialization, started with an OTM presentation of internal gender data to give WIE attendees a clear picture of how women

participate in innovation at Washington University, says Mercier. In addition, the OTM brought in a female faculty member who attended last year's WIE program and also joined Prosper Women Entrepreneurs.

"This faculty member talked about what she learned through WIE, how and why she engaged in Prosper, what she's doing now to get her company off the ground, and how she's been able to put the pieces she learned through both WIE and Prosper into networking so that, for example, she could build an advisory board," explains Mercier.

The two workshops remained much the same as in the launch year: (1) Understanding and Protecting Academic Inventions and (2) Commercializing Academic Research. "However, we did structure them somewhat differently to have more engagement within each session," says Mercier. "We also retooled to make them a little more basic because some concepts we were trying to communicate -- even though they were basic -- were beyond where the faculty members were."

In between the two workshops, the OTM included a new session: Female Faculty Entrepreneurs. While the 2014 WIE program incorporated a faculty entrepreneurship piece into the two seminars, the 2015 WIE series had a standalone faculty entrepreneurship panel so it would be an even stronger focal point, says Mercier.

The final 2015 session was Building Networks to Translate Academic Inventions. "This is another piece that was missing from last year's WIE program. We talked a lot about networking, but we didn't address the basic question: How do you network?" says Mercier.

"So in addition to providing the networking events at the end of each session, we brought in someone to explain the different phases of networking," she says. "For example, if you have an innovation, how do you go and talk to someone who is in the business space who might be a good businessperson for you to partner with? We're focusing on how to have these conversations because attendees were mostly junior faculty, as well as the post-docs we added this year."

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Resources

- January 2015 WIE kickoff seminar flyer: <http://internalmed.wustl.edu/files/WIEFlyerKickOff.pdf>
- 2015 WIE program flyer: <http://internalmed.wustl.edu/files/WIEInternalRegistrationFlyerFINAL.pdf>
- Prosper Women Entrepreneurs: www.prosperstl.com

What about men?

While only women can be enrolled WIE participants, the seminars and networking hours are open to everyone, notes Mercier. "We also invited internal and external community members, both male and female, to this year's faculty entrepreneurship panel."

Not inviting any male participation would be a

disservice to the program, she says. "We want engagement from the entire community -- external, internal, male, female -- to nurture this program and support it on all fronts. We need to engage men in this dialogue in order to build networks. So we do have it open, and a lot of male faculty support this program, either for their female counterparts or because they recognize that having both genders participate in innovation is important."

Contact Mercier at 314- 747-1903 or nmercier@wustl.edu. ►

Equity dilution continued from p. 65

"Start-ups and entrepreneurs would generally frown on the anti-dilution provisions, but it was a back-loaded license and the one thing we could get out front was a good value in equity," Morris says.

Morris is similarly pursuing anti-dilution provisions at Louisville, though he says asking for a higher stake in equity is always an option because that is an easier path if it can be negotiated. The situation is more difficult for institutions that are limited in how much of an ownership percentage they can take in a start-up, often 10% or 15%.

"If that's the case, you're going to be diluted pretty quickly to almost nothing without an anti-dilution provision," Morris says.

A tough negotiating point

Anti-dilution provisions should always be a negotiating point in licenses, Morris says, but don't expect entrepreneurs to accept them easily. Louisville recently had an equity deal in which Morris negotiated for anti-dilution but ultimately lost.

"The entrepreneur was dead set against it and we ended up not getting that provision in the term sheet," he says. "You have to try and it's a question of how hard they are negotiating and what you're willing to give up. The diligence terms are far more important than the equity."

But that doesn't mean anti-dilution provisions will always scare away investors.

"I haven't seen that. I've done deals with anti-dilution that investors still came and invested in," Morris says. "If the interest is high enough they'll invest and just realize that they're getting slightly less bang for their buck when they come in. It's another negotiating point, another piece that has to be balanced against everything else in the deal."

Founders will be affected most by an anti-dilution provision, so expect smart entrepreneurs to negotiate hard against it, Morris notes. The dilution has to come somewhere, he says, so the TTO's challenge is to show that the founders will still benefit from the start-up enough to overcome their equity dilution.

Anti-dilution provisions can create tension with investors as the company grows because the university has been given a preferential position, says **Gerard Eldering**, PhD, founder and president of Innovate Tech Ventures, a Virginia-based venture creation firm that works primarily with university start-ups.

"Our main concern is what are the other investors going to think. Are they going to walk away from a deal they would otherwise do because the university has an anti-dilution stake?" he poses. "A proper cap that limits how much they get before their equity is diluted like everyone else's can help make it more palatable to other investors. We had one university that insisted on having no cap to the anti-dilution, which was absurd and we wouldn't do it, and it signaled to me that the person making the deal was very inexperienced."

Anti-dilution caps tend to be less than \$500,000 and sometimes significantly below that, Eldering says. Morris, however, says he has heard of caps as high as \$5 million.

The language in an anti-dilution provision must be exact, Morris notes. For instance, some companies will negotiate to include grant money into the company as helping them reach the anti-dilution threshold. If the company gets a \$1 million Small Business Innovation Research (SBIR) grant and the anti-dilution threshold is \$2 million, they're halfway to diluting you on just that one grant, Morris says.

"We often looked at what they predicted their

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Equity dilution continued from p. 74

first round of investments would be and tried to set our threshold around that," Morris says. (See the story below for more on how to structure an anti-dilution provision.)

Silicon Valley venture capitalist **Larry Marshall**, formerly managing director at Southern Cross Venture Partners in Australia and now CEO of Commonwealth Scientific and Industrial Research Institute (CSIRO), the country's R&D agency, recently gave an interview in which he says he intends to pursue start-up investing more aggressively to address vanishing equity. The agency will set up its own venture fund so it can participate in follow-on rounds of home grown IP, he says, and avoid losing valuable equity in the process. (See the story on p. 76 for more on Marshall's viewpoint.)

Osage takes the risk, shares profits

Anti-dilution provisions are not the only strategy, as Marshall's plan illustrates, and which at least one venture firm has recognized in its business model. Leaders at Osage University Partners, a VC that invests exclusively in university start-ups, say experience has shown that addressing the problem of vanishing equity can require taking the investment responsibility away from the university.

An analysis of Association of University Technology Managers (AUTM) data showed that

the average equity holding at exit for universities was 0.6%, regardless of how much the TTO started with, notes **Louis P. Berneman**, EdD, CLP, founding partner of Osage, with offices in Pennsylvania and New Jersey.

The equity holding at exit is so low because, in capital-intensive companies and after multiple rounds of investment, the university's share gets diluted quickly.

"That means it is terribly unwise to take equity-only in industries that are capital-intensive, especially healthcare. The economic benefits to the institution are going to come in the form of royalties, milestones, and sublicense sharing -- not equity," Berneman says. "Universities have learned that seed and early stage investors who do not have large enough funds to make follow-on investments are also going to get diluted. They are going to get stuck holding equity in only the deals that no one else wants to invest in."

Universities should have substantial equity in start-ups, such as software companies, that are not capital-intensive and where the institution has played a substantial founder role, Berneman says. In those companies, royalties on forward economic sales may not be appropriate, he says.

But if you're launching a new immune-oncology company that requires a \$50 million Series A and an \$80 million Series B to get the Phase IIb data, there will be virtually no equity left for the institution, Berneman explains.

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Anti-dilution provisions can take several forms

Anti-dilution provisions should keep the university's interest relatively constant during the high-risk period from when the license is granted to when the company achieves its first significant funding, explains **Benjamin D. Kern**, JD, partner with the law firm of Winston & Strawn in Chicago.

In a recent *Technology Transfer Tactics* webinar, Kern explained that there are different ways to structure the anti-dilution:

- The agreement can stipulate that every time the company issues or reserves additional shares that would otherwise dilute the university, they have to issue the university another set of shares to keep the university at the same percentage up until the Series A round.

- Another way to provide anti-dilution protection is to contractually require that at the end of the Series A round, the company must issue the university additional shares sufficient to get the university back up to the target equity percentage.

- It's also possible to use a warrant or an option that at some defined point in the company's future allows the

university to acquire more equity.

Anti-dilution protection most often is structured between stage one, the period between when the license is granted and equity is issued to the university, and stage two, the point in the future where the company is able to take on significant outside funding, he says.

"More specifically, I think it's the time in stage one when a valuation is at least implicitly set for the university's contribution and for the value of the enterprise of the investee company," he explains. "The valuation setting exercise implicit in the first round of outside funding at the Series A round is one of the periods of greatest risk for the university."

Contact Kern at (312) 558-3747 or bkern@winston.com.

Kern's entire webinar presentation, **Tricky Business: Drafting Anti-Dilution Clauses in University Spinout Equity Deals**, is available on DVD, on-demand video, or print transcript, including all presentation slides. For details or to order, go to <http://techtransfercentral.com/market-place/distance-learning/dadc/>. ►

Equity dilution continued from p. 75

While working earlier in his career as TTO director at Penn, Berneman recalls, the university would take 5% to 10% and have a participation right, but it would never exercise that right. He still thinks that was the correct decision.

"I think it is terribly unwise for universities to try to be venture capitalists. They should be using their resources for education and research and not to try to grow economically through equity," Berneman says. If you own a 20% equity position in a dozen companies you've launched, but only one of those companies goes on to actually raise institutional financing, "you own a big piece of nothing."

There is a better way to preserve equity, Berneman says, and that led to the formation of Osage University Partners. Osage partners with institutions to have the right to exercise the university's participation right in their start-up deals. Osage puts up all the capital and, as a pool, the institution shares 25% of the profit.

"We take what is essentially a wasted asset, we make the investment, manage it, and we return 25% of the profit back to the institution," Berneman explains. "Fund One was a \$100 million fund and we completed making investments in that fund in February 2015, with 39 investments.

We've had six very successful exits, five where we had some losses and closed them down, and 28 that are still developing and are performing at or near expectations."

Osage Fund Two closed March 31 at \$215 million, raised in less than a year, and the goal is to do 40-50 investments. There are 16 university partners in the fund considered the most innovative and productive, and 54 associate partners that have good start-up programs but not necessarily the volume of the university partners.

"We solve the vanishing equity problem by investing in those companies to preserve the equity right and then giving the partners a portion of the gains we make on that equity. The track record of institutions investing in growth activity for returns on investment is not good," Berneman says. "Rather than playing the equity game, universities should focus on the dollars they have to de-risk selected projects with proof-of-concept funding, and with projects that are truly transformative, perhaps use some of those funds to seed those efforts to recruit top level management. That management team can then go out and raise money."

Contact Eldering at 703-880-6697 or gerard@innovatetech.com; contact Berneman at 215-275-8492 or berneman@texelerate.com. ►

CSIRO to avoid dilution by investing in Australian start-ups

In a recent interview with *Australian Financial Review* (AFR), Silicon Valley venture capitalist **Larry Marshall** described his five-year plan for making Australia's state-funded R&D agency the critical body linking research in universities to Australian industry. Marshall recently took the helm of the agency, the Commonwealth Scientific and Industrial Research Institute (CSIRO), after coming to prominence as an entrepreneur and investor in Silicon Valley. He founded six companies in the U.S. in the fields of biotechnology, photonics, semiconductors, and telecommunications.

He then went on to become managing director at Southern Cross Venture Partners in Australia, an early-stage VC focused on growing high-tech start-ups throughout the Asia-Pacific region and in North America. Now tasked with rejuvenating CSIRO after severe budget cuts and downsizing, Marshall says countering equity dilution would be one of his main strategies.

CSIRO has 3,900 patents to commercialize, and Marshall says he intends to have the agency far more financially invested in its start-ups than in the past. The agency has not failed to generate revenue, even when it did not invest in start-ups at all, exiting more than \$50 million in equity over nine years. But Marshall says that figure could have been much larger if CSIRO had invested in its own technology start-ups.

"You get diluted dramatically if you don't invest," he said. The \$50 million in equity could have been several hundred million if CSIRO had invested in those start-ups and retained more equity as a result. One reason CSIRO did not invest is that the Australian agency's primary objective is to maximize societal benefits rather than generating revenue -- a parallel to the marching orders of many university-based TTOs. Marshall insists, however, that those goals do not have to conflict, and that encouraging the creation of a multi-million dollar business does produce substantial societal gain.

A key point, Marshall stressed, is that investing in your own start-ups is not a selfish move. A primary benefit of investing is that it signals confidence in the project, reassuring others who might be skittish.

"My thesis is a small fund could actually de-risk and take away that obstacle to the external investors, the global investors, who would say, 'Gee you have a national lab and you have put a little bit of their money behind it. Let's give it a shot.'"

In 2012, CSIRO settled wifi-related patent claims against U.S. telecommunications companies including AT&T, Verizon and T-Mobile for \$220 million. Marshall plans to use part of that money to set up a venture fund. (Editor's note: The full AFR article is available online at <http://tinyurl.com/marshalldilution>.) ►

Customer discovery continued from p. 67

on an additional technology regarding sensors for pathogen detection. "Unlike the other projects, this was a high-tech invention that did not have very many local customers," Brady explains. "So the learning curve was great, and phone calls were the pre-dominant form of customer interview. The licensing officers were more directly involved in the process."

The biggest success, he adds, was the engagement of one major potential customer who gave very useful feedback -- and even hosted the TTO team for an onsite visit to learn more. "The information learned during this process pointed to exactly the questions that needed to be answered to be able to license the technology," Brady notes. "These questions were posed to the inventors, who have been working on solutions since then."

He adds: "We also interacted with a potential licensee, and were able to engage him effectively with the information we had. If answers to those key questions become available, it could definitely lead to a licensing agreement."

That's what the team likes best about the Startup Gauntlet: Aside from training and guiding potential entrepreneurs, it can provide great insight in the evaluation of university technologies. "It's very effective at killing technologies that don't have a market," Brady says, "which can then free up resources to pursue other projects with more potential. And it educates the licensing officers to be able to engage potential licensees with real market information in a manner that, in our small sample size, has been shown to lead to license agreements."

An intensive process

Because of its success so far, the team plans to run through the course again this summer and to "incorporate it on more of an ongoing basis throughout the academic year." That was a struggle last year, Warrington points out, largely because of the intensive nature of the process and the reduced hours available to student workers when they have full class loads. "That process still needs to be addressed," he says. "Larger tech transfer offices may find greater success by hiring a full-time person dedicated to the process who can manage it throughout the year."

The Gauntlet runs for six weeks and requires talking to at least 100 potential customers -- plus preparing the business model canvas and brief presentations. Altogether, Warrington estimates it

requires 10 hours a week. While preparing materials could be done at any time, customer discovery has to happen at a time when customers are available. "Often, that will be only during business hours," he comments. "Sometimes, it can be done on a Saturday afternoon at Home Depot."

Because of the intensive nature of the process, he recommends that licensing officers hand pick the projects to go through the program to capture as much value as possible. "Different offices can have different criteria for which projects they select," he notes. "For our first round, we primarily picked simple widgets and concepts, to help the interns through it at a time when we were still learning the process ourselves." Some of the technologies already had issued patents, he adds, some were pending, and another was simply a good idea with a trademark.

"Generally speaking," he adds, "the candidate inventions should be vetted to the point that you think there could be an immediate market but you're not sure where exactly to take it or how to get it there. They don't necessarily need to be geared towards being a start-up company, but you should have a clear path to being able to identify potential customers to interview."

Contact Warrington, Wright and Brady at 334-844-4977 or at iac@auburn.edu. ►

Experts envision more money flowing for start-ups

New Reg A+ rules from the SEC broaden access to capital

At last, the U.S. Securities and Exchange Commission (SEC) has issued rules for Regulation A+ under Title IV of the JOBS Act -- a long-awaited move that will enable companies to seek investment from both accredited and unaccredited investors in what could be called small-scale initial public offerings of up to \$50 million within a 12-month period.

Theoretically at least, the move greatly broadens access to capital for smaller companies and start-ups looking to expand, but experts caution that the financial and administrative requirements detailed in the new rules are likely to lead many entrepreneurs down a different path. Despite these caveats, though, when the Regulation A+ rules take effect in mid-June, they will bring new tools to the table, remove a few

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onerous burdens, and they just might be the spark that's needed to revitalize a small cap IPO market. And what all of this could ultimately mean is much more money flowing for new high-tech companies.

New rules offer advantages

Essentially, what the new rules do is update Regulation A, an older rule that provides an exemption from registration for smaller issuers of securities. The older rule only enabled these companies to raise \$5 million within a 12-month period, so Regulation A+ has greatly expanded the amount of capital companies can raise through this option.

"It will allow both accredited and unaccredited investors to invest, and that is one of the biggest differences with Regulation D, in which only accredited investors are allowed to invest.... So this really opens up the landscape to anyone who is interested in investing in these companies," explains **Scott Popma**, a partner at Washington, DC-based Ballast IP Law, and founder of Ballast IP Capital, a group focused on using crowd finance to help companies raise capital. "The other big difference is that these shares will be publicly tradable so they will be listed on exchanges and they will be much more liquid; if you buy a share of a company that is listed under Regulation A+ you can sell that share the next day."

Another big plus to the Regulation A+ rules is that they preempt Blue Sky registrations, so that offerings sold under this provision no longer need to be registered in every state in which the securities are sold. "This can save \$35,000 to \$40,000," notes **Douglas Ellenoff**, a corporate and securities attorney at Ellenoff, Grossman & Schole in New York, NY.

Further, the new rules enable companies to "test the waters" before taking all the steps needed to fully commit to a Regulation A+ offering. "They still have to find a broker-dealer who is willing to test the market for a funding platform, and assuming that they do that, they can take comfort that there is enough investor appetite for what they plan to do," says Ellenoff. "Even though companies can't take commitments until they do all the proper documentation, at least this reduces the risk."

This ability to have conversations with investors about their interest in investing in a company before formally going down the Regulation A+ road can save entrepreneurs a lot of time and money. "If you talk to five investors and they all say you don't have a prayer, then you can go back to the drawing board

in terms of your capital-raising plans," explains **David Lynn**, a partner in the Washington, DC office of Morrison & Foerster, and the former chief counsel in the Division of Corporation Finance at the SEC. "But if they do show interest, you can't confirm them in anything yet, but you can certainly judge whether they have an interest in the capital raising."

Consider the costs, burdens

However, even with all of these advantages, Popma contends Regulation A+ is not going to be the answer for most ventures just getting out of the gate, including most university start-ups. "It is probably not great for start-ups unless they are very well-funded," he says. "You are going to probably need a chief financial officer full-time who can comply with the SEC accounting rules, and you are going to have to file annual reports, semi-annual reports, and you have to file reports if there is a material event in your business."

In short, Regulation A+ comes along with many of the burdens that a traditional public company has to bear, and the costs associated with running such a process can exceed six figures. "You will need an infrastructure and someone with experience," says Popma. "It would be hard for a start-up to try to do this on [its] own."

Ellenoff goes further, noting that managing an offering through the SEC, and then running a public-like company, requires a management team with maturity. In fact, Ellenoff has two client companies that may indeed go the Regulation A+ route. "Both of these management teams are experienced folks who understand the demands and responsibilities of making sure that their companies are clean, have good corporate governance, and a Sarbanes-Oxley sort of transparency; \$100,000 or \$150,000 isn't going to make a difference for guys like this," he says. "They are not on a shoestring at all."

Even though many earlier-stage companies will lack the resources to take advantage of Regulation A+, the new option may alter their long-range thinking. This is particularly the case for entrepreneurs and innovators who envision staying involved with their companies as they grow -- an option that isn't necessarily available in the case of traditional IPO exit strategies. "It gives people an opportunity to go public in a non-traditional way and raise capital through a mechanism where it wouldn't necessarily have to follow that tried and true route," explains Lynn.

Further, Lynn notes that the approach should

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enable high-tech entrepreneurs to access a much broader spectrum of investors, well beyond the typical Silicon Valley crowd. This may be important to companies offering innovations that have broad appeal but aren't yet ready for the marketplace. For instance, Lynn offers the example of a biotechnology company that is working on a cure that is as yet unproven. "It may be hard for such a company to raise a lot of capital from traditional sources," he says. "This company might be better off casting a wider net."

Still, Lynn doesn't see a stampede of companies in this type of situation seeking to take advantage of Regulation A+. "In a lot of ways, the Regulation A+ concept is maybe more of a stepping stone to ultimately [doing] a regular IPO than it is [geared toward] early-stage capital raising," he says.

Underwriting remains a concern

While the Regulation A+ approach offers a number of attractive features, Lynn cautions that it is not yet clear who will be willing to facilitate these smaller offerings. "You can change all the rules you want, but who knows if the infrastructure to support these offerings will develop. There isn't necessarily a whole raft of investment banks lining up to do these types of offerings," he says. "We still don't know whether it will be something people look at as a business opportunity and then figure out a way to do it economically."

This is a valid concern, given how the smaller \$25 million to \$50 million IPO market diminished to a trickle years ago as these types of offerings ceased to be economically attractive to banks. "The issue that has to be addressed systematically is how do you attract the intermediaries that can attract the right capital to these types of offerings," observes Lynn. "That is still sort of an unanswered question that the SEC can't really answer for us."

Dara Albright, founder of NowStreet Media, an Atlanta, GA-based advisory firm on capital formation enhancement and co-founder of the SoHo Loft Capital Creation Event Series, an event platform for private markets, agrees that the issue of underwriting still needs to be addressed. "It's great that the JOBS Act creates a new on-ramp for smaller cap companies and helps them get access to the public market, but it was never really the on-ramp or the entrance that was the problem. I think what was the prob-

lem was the highway or the market itself," she says. "We don't have that [underwriting] ecosystem anymore, so once a company goes public, the problem still remains: okay, now what? Who is going to buy the stock? Who is going to trade the stock? I think that is really the main issue that remains."

Start-ups could still benefit

Assuming such intermediaries do come forward, the revitalization of the small cap IPO market could be huge for high-tech entrepreneurs. "Our markets were once able to facilitate small cap companies going public. For example, Intel went public in 1971 at a \$15 million valuation. That would be unheard of today," observes Albright. "There were a lot of successful deals that got done in this manner back in the 1980s and 1990s [involving] some of our most successful and most game-changing and groundbreaking technology companies."

While Regulation A+ may not be ideal for very early-stage companies, Albright believes the new rules will offer some trickle-down financial benefits to these companies. "Regulation A+ will allow companies to basically provide angel investors and venture capitalists with earlier and easier liquidity events, and they will then be able to take that capital and put it back in the system into some of the earlier stage companies," she explains. "If you are able to revive a thriving small cap IPO market and after-market for these types of stocks ... that definitely changes things."

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License to Laugh



"We would like to request a change of venue to an entirely different legal system."

© P.C. Vey The New Yorker Collection/The Cartoon Bank

Reg A+ rules continued from p. 79

Albright sees more companies going public in the future. "You are going to see this becoming more the exit strategy, and I think companies are going to adjust their economic models accordingly," she says.

Popma sees plenty of takers ready to give Regulation A+ a go. "There is pent-up demand. The rules have been sitting at the SEC for over two years, so people have looked at this, they have evaluated it, and they have made the decision on whether this is good for their company," he explains. "There is probably a bunch of companies waiting in the wings ... especially companies that are more advanced and more seasoned that were thinking about having a traditional IPO but were not quite big enough. They don't want the burdens of a traditional IPO, so this sounds better to them."

While these types of companies will probably be the first to launch using Regulation A+, Popma expects that there will also be some other tech-savvy Silicon Valley companies that might want to go this route as well. However, he acknowledges that for most of the companies he talks to, Regulation D is a better fit. "It is very similar to the old private investment, but you can actually tell people you are looking to raise money and you can share that information on a website," he says. "Regulation D is only for accredited investors and the shares are not traded or liquid, so it is early stage money."

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1) Drafting Improvements Clauses in University IP Licenses

Wednesday, June 17, 2015 ~ 1:00-2:00 pm (Eastern Time)

Presenters: **Larry Schroepfer**, founder and principal of Schroepfer Technology Law; **Michael Alder**, Director of the Office of Technology Transfer for Brigham Young University; **David M. Brown**, Associate Director of the Office of Technology Transfer for Brigham Young University

Some of the most complex IP rights are the “Improvements” on licensed innovations. Though it is hard to define what qualifies as an improvement, it generally means modifications, additions, updates, enhancements, and developments made to existing IP.

Since the vast majority of university IP still in development, more often than not there will be improvements made before it’s commercialized. But negotiating improvements rights is muddled with commonly misunderstood terms, complex royalty adjustments, and thorny sublicensing issues just to name a few. Nailing down the terms for improvements early on is a crucial step to protecting your stake in the IP as well as maintaining a harmonious relationship with your licensee.

That’s why *Technology Transfer Tactics* has partnered with IP law experts Larry Schroepfer, Michael Alder, and David M. Brown to lead this 90-minute webinar that will help you fully understand improvements and arm yourself with solid negotiating and drafting skills to protect your IP:

Join us on June 17, 2015, when we will discuss:

- **Defining improvements**
- **Top-notch negotiating tactics**
- **Should your improvements clause address IP, know-how, or both?**
- **The most misunderstood and often overlooked terms leading to disputes or IP losses**
- **Drafting improvements terms:**
 - How specific is too specific when it comes to defining terms?
 - Exclusive vs. non-exclusive rights to improvements?
 - Assigning a time frame to improvements rights
 - How to draft royalty adjustments
 - Who pays to register improvements with the patent office?
- **And much more!**

PLUS! Get your questions answered during the interactive Q&A!

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2) Angel Fund-University TTO Partnerships:

Case Study of the University of New Mexico’s STC.UNM and the New Mexico Angels

Thursday, June 25, 2015 ~ 1:00-2:00 pm (Eastern Time)

Presenters: **Elizabeth (Lisa) J. Kuuttila**, CEO & Chief Economic Development Officer, STC.UNM, University of New Mexico and **John Chavez**, President, New Mexico Angels; President, Tafoya and Brainerd Partners LLC

Crossing the Valley of Death is much easier with an angel on your shoulder....

Just ask tech transfer leaders at The University of New Mexico’s STC.UNM (STC), who’ve built a unique relationship with the New Mexico Angels that has brought in critical funding for university start-ups and shown the value of supporting the entrepreneurial community for the economic benefit of the entire region.

New Mexico Angels is a group of individual accredited angel investors who pool their resources to invest in early-stage companies. The Angels decided to actively reach out to university and national lab partners to identify promising technology and consider the investment possibilities. The resulting launch of The Start-Up Factory has allowed investors to spread their money around, while producing a larger pool of investment for faculty start-ups.

See reverse side for more information or to order >>

Angel funding continued ...

For STC, the close ties with the investment group means a ready source of funding for a selection of their most promising technologies, and a steady stream of successful companies. Here's your chance to learn from their success and adapt their partnership model to your own organization.

Here's a quick look at the agenda:

- **The history and evolution of STC's relationship with the New Mexico Angels**
- **How STC piqued the New Mexico Angels' interest in university technologies**
- **How much money New Mexico Angels invest and how those investments are structured**
- **Cultivating relationships with Principal Investigators by:**
 - Offering learning opportunities regarding market research
 - Preparing PIs for funding pitch presentations
 - How both parties address potential conflicts of interest
- **What types of companies STC is pitching to The Start Up Factory**
- **Understand the New Mexico Angels and STC's financial and management stakes**
- **And much more!**

PLUS! Get your questions answered during the interactive Q&A!

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- ☐ Drafting Improvements Clauses in University IP Licenses (Wednesday, June 17, 2015) -- \$197
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