EXPERT INSIGHT

Intellectual Property: How To Incentivize BioPharma R&D with a **Culture of Innovation**





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Intellectual property (IP) is a biopharma company's most valuable resource, and its protection is a key to the company's future success. Here is how you can create a culture of innovation that values, protects and encourages scientific research.

In this article **Katherine Neville**, Ph. D. discusses methods for incentivizing the scientific workforce to protect their inventions, managing such invention disclosure forms (IDFs), and determining an ROI on the efforts, financial or otherwise.

Life sciences companies rely on their research and development (R&D) and maintaining a robust pipeline of clinical products.

Essential factors in building and maintaining that pipeline start with capturing innovation from the scientists and making sure that individuals consider their work worthy of potential patenting and then reporting on their discoveries. In addition to incentivizing scientists to think about and foster a culture of innovation, there also should be a regular and straightforward system for capturing their discoveries and protecting their intellectual property.

Once these innovations are in the system, there should be a method of assessing the invention for further development and metrics for calculating a return on investment (ROI) in the R&D efforts.

Encouraging Your Workforce to Value Intellectual Property

It is essential to keep your R&D team well-incentivized to promote discoveries and intellectual property filings within the organization. There is a need to balance scientists' desire to publish their findings in a paper or discuss them at a conference with the idea of keeping an invention secret until a patent application can be filed. To promote the submission of invention disclosure forms before any public disclosure, it can be helpful to offer incentives that promote the culture of innovation within the company.

Celebrating innovators at a department or company-wide innovation or patent day often demonstrates to the scientists that submitting invention disclosures is valuable to the company. Scientists who submit disclosures could receive a bonus or small token of appreciation for submitting a certain number of disclosures taken forward by the IP team.

Another way to incentivize scientists to promote innovation is training on the basics of intellectual property and how patents/trade secrets are important to the company. Regular training and discussion of intellectual property and the involvement of scientists in helping with interactions with the United States Patent and Trademark Office (USPTO) can also spur interest in the importance of intellectual property and the process of protecting company innovation.

Regular discussion of IP at department or team meetings and brainstorming sessions about possible projects or add-ons to current projects also serves as a regular reminder of the significance of IP.

Some larger and international companies offer monetary remuneration for patent filings or issued patents. However, to avoid abuse of this system and maintain the quality of disclosures, meet with scientists or engineers in small groups, requesting each individual write a short synopsis of their current project or ideas. This produces a more diverse pipeline of invention disclosures and fosters innovation in individuals who may be less likely to speak up in a group setting, validating that all ideas are worth consideration. However, suppose you get scientists or engineers to submit an IDF. In that case, it is incumbent that the in-house IP team or outside counsel review the disclosure and provide feedback. Without acknowledgment of their ideas and efforts, individuals are less likely to keep submitting their ideas if they feel undervalued.

Tracking Innovation through the Pipeline

Now that the workforce is incentivized to submit more invention disclosures, a comprehensive invention capture system is critical for tracking and capitalizing on your company's innovations. Even smaller organizations can benefit from creating a formal invention capture system, even if it is a simple online form summarizing new ideas and whether the idea has been disclosed previously or is imminent.

While this system provides basic information, a more probing invention capture system can cut down on the time the IP team spends reviewing and ultimately triaging whether an invention disclosure should go in the stack of "ready for filing" or another, "wait and see."

Additional information in the capture process could include a request for figures or slides demonstrating results from the experiments, additional publications that may have been considered when developing the new idea, and individuals who should be considered as contributors. The additional figures attached to the IDF help assess the work done on the project, i.e., is it more than just a concept, and whether more data could help support the new ideas. Publications that the authors have considered help steer the in-house or outside counsel to information that may be relevant to assess whether there is relevant third-party disclosure to be considered before filing. A list of individuals who may have contributed provides initial documentation of who you may need to consider for inventorship and who to contact for questions regarding the invention.

This easy-to-fill-out form may garner more IDFs than a smaller in-house team can handle, but having a flood of ideas is better than a dry well. (Anecdotal evidence from one source shows participation increased by more than 250 IDFs annually for a large company just from promoting this concept at team meetings.)

Demonstrating the Value for Your Organization

Deciding which ideas to pursue and measuring the ROI in IP is different for each company and varies depending on its stage. For early-stage companies, intellectual property may be the core asset driving value, and therefore, more patent or trademark filings are considered a valuable notch in a company's belt for future investment.

To provide ROI, a company can file many provisional applications over a year, but revisiting future value at the one-year, non-provisional stage is important. Without future work on a subject matter or slower development, there may be no non-provisional in that project pipeline. Because of the potential development gap between provisional and non-provisional filing, a useful ROI metric could be the number of PCT/non-provisional applications filed or the number of patents granted.

For a later-stage company, the number of patents/filings achieved per year may not be as important as maintaining and enforcing critical IP protecting a product on the market and carefully strategizing about additional IP protection and how it fits with the current portfolio. In this case, the ROI can also be calculated by how long the patent term will last and whether the issued claims are enforceable against competing products.

Depending on the company's technology, in addition to or as an alternative to the number of patents, ROI can be calculated by metrics such as licensing revenue from a patent portfolio or money earned from licenses or other milestones.

While patent numbers or other revenue provide concrete numbers to present to the C-suite who allocate funds, ROI can also be evaluated in different, non-monetary ways. ROI is also found in maintaining company trade secrets and training and providing a workforce with an innovation mindset. If the C-suite or general counsel asks about how innovation and IP can help the company, in-house IP teams can advise how their internal group helps inventors brainstorm about how to expand their innovations and can suggest possible alternative approaches to solve a problem given third-party disclosures.

In-house IP teams can also navigate company leadership through the processes related to IP portfolio strategy management and how they are aligned with the organization's mission.

Many companies struggle with innovation capture and evaluating the ROI in an IP portfolio. To improve invention capture, incentivizing scientists to fill out IDFs and take ownership of their invention from IDF through interactions with the USPTO strengthens scientists' relationships with the IP teams and fosters an open line of communication of new ideas. Company-wide incentives like showcasing individuals or teams on Innovator Day or small rewards or recognition on a Patent Wall can help foster a culture of innovation. Taking in sufficient information on a robust IDF, including background and figures, and data on the invention, will also help the in-house IP team evaluate innovations more efficiently by seeing what data is already in hand and then discussing with the inventor's future invention development.

While ROI is often most readily measured by numbers, e.g., number of PCT filings, number of U.S. patents, licensing revenue, or milestones, other metrics should be considered that are not just numeric.

Education to both the scientists and the C-suite on the importance of all intellectual property, including patents, trademarks, and trade secrets, places each level of the company on the same footing regarding what IP is and what it means to company innovation and growth.

Involving scientists and the C-suite in developing and protecting the company IP is paramount to IP development. It is crucial to improving the ROI on a company's intellectual property.

About the author



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