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Essential Patent Protection Areas for Pharma Startups

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This entry, Part II in our multi-part series, focuses on strategic choices in protecting both discovery platforms and the resulting outputs to maximize competitive advantage, leverage business opportunities, and ensure long-term commercial success.

Understanding Key Concepts

To support founders newer to intellectual property (IP) strategy or the pharmaceutical industry, we have included brief explanations of key terms used throughout this article:

Discovery Platform: Proprietary technological systems or methods (e.g., antibody libraries, high-throughput screening) that enable the identification or creation of new drugs or therapeutics.

Enablement: A patent law requirement that the patent application must teach others skilled in the art how to make and use the invention without undue experimentation.

Freedom-to-Operate (FTO): The ability to commercialize a product or process without infringing on the valid IP rights of others.

Downstream Products: Products or applications that result from the use of a discovery platform, such as novel antibodies, enzymes, or small molecules

Understanding the Value of Discovery Platforms

A company's competitive edge often hinges on its proprietary discovery platforms, such as antibody libraries or high-throughput screening methods. These platforms are frequently the drivers behind novel product development and innovation. Therefore, the intellectual property (IP) strategy surrounding these platforms is critical to not only protect the initial investment but also to ensure continued commercial viability. Companies must recognize that robust patent coverage for both the platform and its outputs can serve as a powerful barrier to competition and a foundation for future growth.

The Dual Approach: Platform and Output Protection

To safeguard their interests, companies should adopt a dual-pronged patent strategy. This means seeking protection not just for the products and inventions generated by the platform, but for the platform itself. By patenting the underlying technology, such as unique methods of screening or the composition of a proprietary library, companies secure exclusive rights to the platforms use. This ensures founders can pursue the startups' initial focus, while also providing flexibility to pivot as new discoveries arise. Simultaneously, patenting specific outputs, like the novel antibodies, enzymes, or small molecules identified or generated through the platform, prevents competitors from capitalizing on the fruits of the platform's capabilities without authorization.

Stepping into your Competitors' Shoes

Ask yourself:

1. How would I design around these claims?
2. Is there any way I can use this platform without infringing?
3. What does my freedom-to-operate or ability to undertake R&D look like in view of this patent?

Freedom-to-Operate (FTO) Analysis: Why It Matters

Before investing significant resources in R&D or commercialization, startups should work with counsel to review existing patents in their field. This helps identify potential infringement risks and guides design choices to minimize legal exposure. FTO analysis is also a key component in attracting investors and partners, who will want assurance that the startup can operate without the threat of costly litigation.

Real-World Example: The Dual Strategy in Practice

Consider a biotech startup that developed a novel screening platform for antiviral compounds. By patenting the platform's unique screening process and separately patenting the most promising compounds identified, the company secured exclusive rights to both the technology and its outputs. This dual protection enabled the startup to license the platform to other firms for unrelated research, while retaining exclusive commercialization rights to its lead antiviral candidates.

Securing Broad Patent Rights for Strategic Advantage

Securing broad patent rights on discovery platforms offers significant strategic advantages. A well-drafted patent can encompass a wide range of applications, providing leverage over multiple products, therapeutic areas, or research programs, all while preserving future rights to downstream products. This breadth amplifies the commercial value of the platform, making it a key asset in licensing negotiations, collaborations, and potential acquisitions. Such patents also create a higher barrier to entry for competitors, who may find it difficult to design around the protected technology without infringing.

Navigating Patentability Challenges

While the benefits of broad patent coverage are clear, obtaining such protection can be challenging. Patent offices worldwide scrutinize discovery platform patents for issues related to patentable subject matter, enablement, and written description. Essentially, applicants must provide sufficient detail to demonstrate that the platform can reliably produce a range of outputs, and that the invention is more than an abstract idea. Careful drafting, supported by comprehensive experimental data and clear claim language, is essential to overcome these hurdles.

Common Patentability Challenges

Patentable Subject Matter: Ensure the claims are drafted to avoid characterization as abstract ideas or natural phenomena.

Enablement: Include experimental data demonstrating the platform's utility.

Written Description: Clearly describe how the platform can generate a range of outputs, supported by examples.

Linking IP Strategy to Business Development

With platform patents in place, companies are better positioned to negotiate partnerships, joint ventures, or out-licensing opportunities. Potential collaborators or investors are more likely to engage with companies whose technology is comprehensively protected, reducing the risk of IP disputes and enhancing the perceived value of the underlying platform. Additionally, platform patents can form the basis for royalty streams or milestone payments tied to the development of multiple downstream products, further increasing the company's revenue potential.

Biotechnology founders face unique challenges when protecting the full value of their discovery platforms and outputs. At Kilpatrick, our Intellectual Property Teams work closely with clients to navigate these complexities

and craft patent strategies that safeguard critical technologies and foster commercial growth. We are committed to delivering practical, forward-looking advice that enables companies to build resilient IP portfolios, unlock business opportunities, and sustain long-term success.

For more information on building a strong patent portfolio, or to access additional resources from IP Rx: The Pharma Founder's Toolkit, please visit our page or connect with me.