



case study

Patent Protection and Innovation in Food Tech: The Legal Battle Over Hemeprotein Technology



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The legal battle between Impossible Foods and Motif FoodWorks over hemeprotein technology, a breakthrough that gives plant-based meat its distinctive, meat-like taste, illustrates the strategic importance and complexities of patent protection in food tech. This case shows how businesses in emerging industries can navigate patent infringement disputes while balancing innovation with competitive pressures. It also highlights how patents can become sources of contention, particularly in fast-evolving industries like plant-based foods.

The Hemeprotein Dispute: Impossible Foods vs. Motif FoodWorks

Impossible Foods, a pioneer in plant-based meat, developed a unique soy leghemoglobin protein that mimics the flavor and “bleeding” effect of real meat. This hemeprotein technology became the cornerstone of its products, attracting widespread attention and consumer acceptance. Recognizing the uniqueness of its innovation, Impossible secured patents to protect its proprietary technology and maintain its competitive edge.

They encountered a challenge, however, when Motif FoodWorks launched a competing product that used a similar technology. In response, Impossible filed a patent infringement lawsuit against Motif, claiming that the competing product unlawfully replicated its patented innovations.

Motif countered by challenging the validity of Impossible’s patents at the Patent Trial and Appeal Board (PTAB), a legal forum that allows parties to contest the validity of granted patents. The PTAB issued a mixed ruling, invalidating one of Impossible’s key patents and upholding others. Ultimately, the two companies settled the matter out of court, avoiding the prolonged costs and uncertainties of continued litigation. In hindsight, the case underscores how patents function both as shields for innovation and as catalysts for disputes in competitive markets.

Key Challenges in Patenting Food Tech: Navigating the Gray Area

Food technologies are inherently challenging to patent. Many food-related innovations rely on naturally occurring elements or processes, which can complicate the process of meeting



patent eligibility criteria. To secure a patent, inventors must demonstrate that an invention is:

- **Novel:** Demonstrably new and not previously disclosed
- **Non-Obvious:** Something other than an obvious development to someone skilled in the field
- **Useful:** Featuring a practical application

Impossible Foods' heme protein technology, while innovative, reflects the complicated nature of food tech patents. The PTAB's decision to invalidate one of Impossible's patents shows how challenging it is to prove that a biotechnology innovation is both unique and non-obvious. For entrepreneurs in food tech, this serves as a reminder of the importance of a robust patent application strategy, including thorough documentation and expert legal guidance to strengthen claims of novelty and utility.

How Patent Disputes Shape Market Dynamics

Patent disputes in emerging industries, such as plant-based foods, can shape market dynamics, influencing innovation and consumer choices. The Impossible Foods vs. Motif FoodWorks case demonstrates how patents function as competitive tools to protect market position and intellectual property. Defending a patent portfolio in court can be resource-intensive, though, posing challenges for smaller businesses and startups.

Both companies' decision to settle highlights a common reality in patent litigation: The financial and operational costs of extended legal battles often outweigh the potential benefits. By settling, companies preserve resources for ongoing innovation and market competition instead of being consumed by litigation.

For entrepreneurs, this case underscores the importance of weighing the costs and benefits of pursuing patent disputes. Strategic considerations, such as the strength of the patent claim, potential financial impacts, and long-term market implications, should guide decisions on whether to litigate, settle, or explore alternative dispute resolution mechanisms.

What Entrepreneurs Can Learn from the Impossible Foods Case

The Impossible Foods vs. Motif FoodWorks case offers critical insights for entrepreneurs in industries where technology and innovation are rapidly advancing:

Crafting a Winning Patent Strategy

A strong patent portfolio is essential for protecting innovations and establishing a competitive advantage. Entrepreneurs should:

- File patents for all unique aspects of their technology, including processes, formulations, and applications.

- Ensure that patents are written with sufficient breadth to cover variations of the technology while maintaining enforceability.
- Work with legal and technical experts to strengthen claims and anticipate potential challenges during patent prosecution.

How to Spot and Address Potential Risks

Patent disputes can arise unexpectedly in competitive industries. Entrepreneurs should:

- Conduct patent landscape analyses to identify potential conflicts with existing patents.
- Monitor competitors' activities to detect potential infringement early.
- Prepare contingency plans to address potential disputes proactively.

Weighing the Costs and Benefits of Litigation

Patent litigation protects critical assets but often proves lengthy and expensive. Consider alternatives such as:

- **Licensing agreements:** Offering competitors access to patented technology in exchange for royalties can provide revenue while avoiding litigation.
- **Settlement negotiations:** Resolving disputes outside of court can save costs and preserve business relationships.
- **Collaboration opportunities:** In some cases, joint ventures or partnerships with competitors can turn disputes into mutually beneficial arrangements..

Beyond Patents: Exploring Other Intellectual Property Protections

In addition to patents, businesses can protect their innovations using complementary intellectual property protections including:

- **Trade secrets:** These protect confidential processes or formulas that cannot be easily reverse-engineered.
- **Trademarks:** Establish brand identity to differentiate products in the marketplace.

Balancing Innovation and Legal Strategy: Staying Competitive in Food Tech

In emerging industries like food tech, where proprietary technology is key to market differentiation, a well-planned intellectual property strategy is essential. By investing in robust patent protections, anticipating competitive challenges, and exploring collaborative opportunities, innovators can navigate the evolving landscape of innovation with ease. As the case demonstrates, success often lies in the ability to adapt, strategize, and protect intellectual property while fostering continued creativity and growth.





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