

## Citius Minds supports a biotechnology company in securing a patent for a novel genetic sequence while mitigating infringement risks

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### Challenge:

A global biotechnology company was planning to patent a novel genetic sequence they had developed for a crop resistant to extreme weather conditions. The sequence encoded a specific protein that enhanced the plant's ability to withstand drought and heat stress. The client wanted to ensure that their sequence was novel and did not infringe upon any existing patented sequences.

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### Execution:

Our team began by thoroughly understanding the biological functions and structure of the disclosed genetic sequence. Using advanced bioinformatics tools and proprietary sequence search databases, we identified homologous and similar sequences in existing patents and scientific literature. Our search strategy involved using BLAST-based algorithms, keyword combinations, and specific genetic markers to detect prior art.

We discovered a closely related sequence patented for a different use—enhancing photosynthesis in algae. Although it shared significant structural similarities with the client's sequence, our detailed comparison identified notable differences in the functional domains and claims of the existing patents. We provided a report that included:

- A sequence alignment matrix highlighting similarities and differences.
  - A comparative analysis of claims and their scope.
  - Suggestions for drafting claims that would differentiate the client's sequence
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**Impact:**

The client used our findings to amend their claims, focusing on the drought-resistant function of their sequence. This enabled them to secure a robust patent while avoiding potential infringement. Additionally, they leveraged our report to identify licensing opportunities for non-overlapping uses of the sequence.

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*“Citius Minds’ expertise in sequence analysis helped us refine our claims and secure a robust patent for our genetic innovation. Their detailed comparisons and strategic guidance not only protected us from infringement risks but also revealed new licensing opportunities. Their support has been critical to our success.”*

*Chief Scientist, A Biotechnology Company*

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