Seamless integration of AI technology into antibody development In silico-driven humanization and immunogenicity screening

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Introduction

Background: Biologics drug discovery and development is a challenging and costly process, which requires complex stages of screening and characterization. The advent of higher throughput screening and sequencing has necessitated computational capabilities to manage the large quantities of data generated.

The challenge: Sequence engineering, immunogenicity assessment and developability characterization of antibodies have been accomplished with focus on individual or smaller number of well-characterized Early in silico optimization enables early triaging and is seamlessly integrated with high quality wet lab for downstream characterization





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clones due to the low throughput nature of each process stage and are typically reserved for late-stage development, hence increasing the cost of late-stage attrition.

IPA's solution: Seamlessly integrated in silico immunogenicity assessment and humanization to accelerate the antibody development process:

- High throughput immunogenicity assessment ranking
- Reference library of clinical antibodies
- Scalable and rapid process enables screening at earlier stages
- Increases value of your antibody project: quality and quantity





- immunogenicity assessment screening.

Summary

Al-driven in silico immunogenicity assessment that is scalable enables early screening and triaging of immunogenic clones in the antibody development process. Seamlessly integrating this high throughput computational workflow with industry-leading wet lab capabilities accelerates IPA's end-to-end antibody discovery and development. We can now deliver an unparalleled number of clones, each with increased value, that will exponentially improve the success rate of projects.