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Fleming : AI-driven Integrated Drug Discovery Platform

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New drug development cost more than one billion over the last decade. And the chance of success was quite low, one in five thousands. In order to make the drug development process efficient in terms of time and cost, Artificial Intelligence has been actively introduced to and rigorously adopted in the various fields of drug development: compound activity prediction, compound design, patient selection, and clinical trial design, just to name a few.

As these fields become advanced, more AI-based drug development platforms are developed and deployed in the fields to overcome data shortage.

Fleming is an integrated and automated platform for time and cost efficient drug development. It uses protein structure prediction and genome-based target selection for efficiency. In Fleming, precise target protein structures, generated by protein structure prediction techniques using AI, are used to pick candidate compounds and to design active compounds with high chance of success. And genome-based analysis powered by Fleming AI selects (find-an-adjective-for-this) compounds by predicting compound activity and toxicity.

These features in Fleming accelerate the new drug development process utilizing and combining various technologies: disease genome analysis, candidate compound selection, compound generation, activity prediction, and toxicity prediction.

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