ProteinGAN – deep learning framework for rapid generation of highly-functional synthetic enzyme libraries

BRIEF DESCRIPTION OF A TECHNOLOGY

The immense size of protein sequence space and poor understanding of sequence-function relationships renders current protein library design methods highly inefficient. Deep learning based technology developed by Biomatter Designs – ProteinGAN – provides a way to generate highly diverse and functional synthetic enzyme libraries. Due to high amounts of mutations in each synthetic enzyme sequence (up to 50% currently shown) and their retained catalytic activity, the designed libraries can be subjected to exceptionally potent screening for improved activity, thermostability and other characteristics.

FIELDS OF APPLICATION

Protein engineering.

TECHNOLOGY READINESS LEVEL

Technology validated in lab.

INTELLECTUAL PROPERTY


PUBLICATIONS


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