CENGN

ADAPSYN INNOVATION HIGHLIGHT

ADAPSYN

COMPANY OVERVIEW

Adapsyn Bioscience is a Canadian chemical bioinformatics company focused on the discovery and development of novel small molecule therapeutics. Adapsyn's platform analyses metabolomic and genomic data from bacteria to identify, isolate, characterize, and test novel drug-like molecules, and Adapsyn has established the capability to screen thousands of compounds per year. The technology can be applied to find new drugs in the fields of oncology; bacterial, fungal, and viral infection; autoimmune disorders; cardiovascular and lipid metabolism disorders; neuroscience; and others.

LOCATION: HAMILTON, ON

TECHNOLOGY

Data Centre and Cloud

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ILLNESSES NEED NEW DRUGS

In the medical industry, new drugs must continuously be developed to treat illnesses facing humanity. By harnessing advancements in computational technology, the discovery of new medications and treatments can accelerate faster than ever before. To seek out new drugs to treat illnesses from natural sources, biotech companies must tailor their computing platforms to analyze chemical and genomic data accurately and efficiently while using network resources as data continues to grow exponentially.

PLATFORM FOR THERAPEUTIC DEVELOPMENT

Adapsyn developed a platform that analyzes complex genomic and metabolic data from bacteria. This information enables the accelerated discovery of novel drug candidates from these microorganisms found in nature without rediscovering those that have been found previously. Adapsyn's analysis processes allow target molecules to be prioritized, isolated, and evaluated for use as therapeutic medicines in high throughput.

SCALING FOR SUCCESS

Adapsyn leveraged the CENGN Testbed to determine if their data analysis platform could operate at sufficient levels for production use. Using a CENGN project space, Adapsyn migrated their solution to a Kubernetes environment, allowing them to scale horizontally and remove unrequired resources. Through the successful project, Adapsyn can now more rapidly analyze the results of their algorithm and subsequent data analytics, to validate new therapeutic drug leads.

> "Development on the CENGN K8s environment provided us with the skills needed to better optimize our platform through cloud autoscaling, as well as providing valuable results from our test set."

Chris Dejong

VP of Technology, Adapsyn