

# AI-ENHANCED MOLECULAR MODELING SHORTENS THE PATH TO MARKET OF NEW DRUGS

CASE STUDY

biosimulytics uses Viridien's HPC Cloud and software optimization to accelerate drug molecule simulations

## CUSTOMER

biosimulytics focuses on developing a platform that enables biopharma companies to shorten the time to market of new drug compounds by simulating lead optimization, one of the most challenging steps of the drug development process. This process relies on tedious laboratory experiments to crystallize and further characterize candidate drug molecules. biosimulytics' patented platform computes the most stable crystal structure, making drug development faster, more cost-effective and with less risk.

## CHALLENGE

biosimulytics faced the compute challenge of taking the 2D structure of molecules and searching the 3D landscape for the lowest energy predictions. This endeavor requires millions of simulations that are not only time consuming, but also expensive. biosimulytics' users were demanding results in no more than 2 weeks, and they needed to find a way to meet their needs.

## SOLUTION

Selected as the exclusive Cloud partner, Viridien leveraged its expertise in HPC Cloud and software optimization, working hand in hand with biosimulytics to optimize their platform and accelerate their capabilities.

## RESULTS

Thanks to this partnership, biosimulytics is comfortably on track to achieve their goals in terms of speed, cost, utility, and usability.

“Our partnership with Viridien has proven to be a game-changer, thanks to the substantial enhancements we've made to our codes. This marks just the initial stages of our exciting journey”

**Peter Doyle, CEO, biosimulytics**

## THE VIRIDIEN DIFFERENCE



Our experts work with your scientists and business leaders to provide a specific, scalable, cost-effective cloud environment. Whether it's processing and analyzing genomics data for the early diagnosis of cancer, biological and chemical process simulation that'll shorten the pathway to market of new drugs, or implementing computer vision techniques, Viridien will make technology simple and affordable, enabling life sciences organizations to make their next breakthroughs.

Learn more about Viridien's AI and HPC solutions at [viridiengroup.com/hpc](http://viridiengroup.com/hpc)