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Peptone to scale its AI-driven protein engineering system PeOS in Iceland

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Collaboration with NVIDIA and Verne Global to scale its AI-driven protein engineering system in order to meet increasing demand from the protein therapeutics market.

Four months after raising its seed round from Hoxton Ventures and dRX Capital, a venture arm of Novartis Pharma AG, Peptone, the molecular computational physics company focused on protein drug discovery and engineering tools, has installed an NVIDIA DGX A100 system at Verne Global's HPC-optimised data center campus in Keflavik,Iceland. The company also announced a collaboration with NVIDIA to scale its AI-driven protein engineering system in order to meet increasing demand from the protein therapeutics market.

Peptone's team led by physicist and founder Dr. Kamil Tamiola has developed the foundations of the Protein Engineering Operating System (PeOS) in collaboration with NVIDIA. The PeOS handles massively parallel molecular simulations that are orchestrated and supervised by reinforcement learning algorithms. The core functionality of the platform is an automated search for non-obvious protein variants with desirable therapeutic properties and cost-effective manufacturability.

Peptone elected to colocate its new NVIDIA DGX A100 supercomputer at Verne Global's campus as it is powered by 100 percent renewable energy and, as part of the NVIDIA DGX-Ready Data Centre Program, is optimized to maintain and support high density and HPC applications running on NVIDIA infrastructures.

Dr. Kamil Tamiola, CEO and founder of Peptone, said, "Our collaboration with NVIDIA ensures that we have access to best-in-class AI and supercomputing hardware and support. The decision to locate our computing hardware in Verne's Global facility in Keflavik transpires from our commitment to sustainability and security, as no other Tier-3 facility in this part of the world offers this level of operational resilience and runs on completely renewable energy sources. We are the first startups with our own supercomputing hardware operating on completely renewable energy sources."

Dominic Ward, CEO at Verne Global said "Verne Global as data center partner is powered by 100 percent renewable geothermal and hydroelectric energy sources, is optimized for the secure and scalable high-intensity computing required by Peptone to successfully meet the growing demands of the protein therapeutics market and accelerate the time to market of protein-based drugs."