PolarisQB Announces Integration of Virtual Libraries from Liverpool ChiroChem into Quantum-Aided Drug Design

PolarisQB announce integration of Virtual Libraries and Fragmentation schemes from chemical innovator Liverpool ChiroChem into Quantum-Aided Drug Design (QuADD)

DURHAM, NORTH CAROLINA, UNITED STATES, August 12, 2024 /EINPresswire.com/ -- Polaris Quantum Biotech (PolarisQB), a leader in Quantum Computing for drug discovery, is announcing the integration of Virtual Libraries and Fragmentation schemes from chemical technology innovator Liverpool ChiroChem into their Quantum-Aided Drug Design (QuADD) platform.

QuADD, released by PolarisQB in 2023, is the first computational chemistry platform to utilize the increased optimization power of today's quantum computing to search a massive chemical space of over a nonillion (10^30) potential molecular combinations to identify novel candidates for drug discovery. This allows teams to narrow the molecular options for a particular protein pocket and ligand structure from this massive chemical space to a library of a few hundred potential molecules in a matter of minutes rather than a matter of weeks or years.

> Liverpool ChiroChem ULVL chiral molecules can now be accurately identified in QuADD and ordered by customers, shortening timeline from initiation to molecules ready for testing from months to weeks."
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> *Dr. Shahar Keinan*

Liverpool ChiroChem helps teams develop high-quality drugs by providing access to a 3D chemical space to support orthogonal hit-ID (VLS, DEL, FBLD) and lead optimization. With the integration of this 3D stereo defined Ultra-Large Virtual Library (ULVL) into the QuADD platform from PolarisQB, research teams can identify candidates that are immediately available for further computational

research, screening, or wet lab testing. This can accelerate the computational drug discovery process by orders of magnitude, shortening a part of the typical timeframe normally measured in months or years to one measured in days or even minutes.

“We are excited about this collaboration with Liverpool ChiroChem.” Said Dr. Shahar Keinan, PolarisQB CEO, “Liverpool ChiroChem ULVL chiral molecules can now be accurately identified inside QuADD and ordered by customers, shortening the timeline from project initiation to molecules ready for testing from months to weeks.”

“Quantum computing has long been promised as the next frontier in AI-assisted drug discovery, but very few companies have been able to successfully make the transition. LCC is extremely excited to be working with PolarisQB and we are greatly encouraged by the efficiency of the projects we have collaborated on in recent months. PolarisQB’s clients will be able to expertly mine LCC’s highly novel and diverse chemical space to discover and develop precision medicines.” Dr. Paul Colbon, Liverpool ChiroChem CEO & Co-Founder.

About PolarisQB:

Polaris Quantum Biotech (PolarisQB), a leader in Quantum Computing for drug discovery, created the first drug discovery platform built on a Quantum Computer, Quantum-Aided Drug Design (QuADD). Founded in 2020 in Durham, North Carolina, PolarisQB uses the latest quantum and cloud computing, artificial intelligence, and machine learning to identify drug lead molecules from a chemical space of 10^30 molecular options. The QuADD platform is able to search a massive chemical space and deliver molecules specific to LCC libraries as well as de novo space. Final candidates, which are identified in minutes, have the custom drug-like characteristics for the discovery project and are represented in 3D conformations in the target protein pocket. Additional information is available at www.Polarisqb.com.

About Liverpool ChiroChem:

Liverpool ChiroChem Ltd (LCC) is a chemical technology innovator, on a mission to accelerate the discovery and development of high-quality drugs. LCC provide access to 3D chemical space to support orthogonal hit-ID (VLS, DEL, FBLD) and lead optimisation. LCC has designed a 3D-rich, stereodefined 1.4-Bn member Ultra-Large Virtual Library, which is synthetically tractable through using reaction based enumeration of their proprietary BB, co-located with their parallel synthesis laboratory.

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