Cyrus Biotechnology and OpenEye Scientific Software Announce Collaboration and Cheminformatics Integration to Expedite New Drug Design and Development with Cyrus Bench Platform

SEATTLE, WA October 30, 2018 — Cyrus Biotechnology, Inc., a Seattle-based biotech software company commercializing Rosetta, an advanced protein design platform, announced today that through a collaboration with OpenEye Scientific Software, Inc., a leader in computational molecular design, capabilities have been developed that allow small molecule ligands to be processed and used with Rosetta and within the Cyrus Bench® platform for computational protein drug design.

"We are very excited to integrate these new ligand tools in our protein design platform," said Cyrus CEO Dr. Lucas Nivon. "Previously scientists have had to endure incompatible tools and sub-par results when carrying out protein-ligand modeling, but with the new automated small molecule integration, we have created a straightforward and reliable tool our customers can use to design new therapeutics and industrially useful enzymes."

Rosetta software is the world leader in protein modeling and design. However, including small molecule ligands when using Rosetta has been problematic, severely limiting its utility for many pharmaceutical, consumer products and other applications where protein/small-molecule interactions are critical.

Cyrus has developed new scientific tools that integrate OpenEye's cheminformatics and modeling technologies to allow Cyrus customers to:

- Parameterize small molecules robustly and with high accuracy
- Carry out enzyme and general protein design in the presence of a ligand.

OpenEye CEO, Dr. Anthony Nicholls, said, "We are excited to be a part of Cyrus Bench® by providing OMEGA, the world's best validated and industry-leading conformer generation tool, along with OpenEye's robust and highly performant cheminformatics and modeling capabilities. We look forward to seeing the science both companies will enable by this partnership."

OpenEye has been a leader in cheminformatics and molecular modeling for over twenty years. OpenEye's toolkit platform allows flexible and powerful workflow integration with Cyrus Bench

and Rosetta software. Robust and seamless support for state-of-the-art small molecule/protein interactions is now available to Bench users.

This software integration has been tested and debugged on thousands of examples from the Protein Data Bank and will robustly allow small molecules to be included in most Rosetta calculations in Bench.

This new set of tools for protein modeling in the presence of arbitrary small molecules—utilizing a simple-to-use Rosetta GUI--is now available to existing subscribers to Cyrus Bench® and can be accessed by new customers by subscribing to the Cyrus Bench® suite of tools.

Cyrus Biotechnology

Cyrus Biotechnology, Inc. is a privately-held biotechnology software company offering protein modeling and design capabilities to the Biotechnology, Pharmaceutical, Chemical, Consumer Products and Synthetic Biology industries. Cyrus was founded in 2014 as a spin-out from the University of Washington, and offers Cyrus Bench®, a Software-as-a-Service (SaaS) platform for protein structure prediction via homology modeling, protein modeling, protein stabilization, protein engineering and protein design to accelerate discovery of biologics and small molecules. Cyrus Bench is based primarily on the Rosetta molecular modeling and molecular design software package from the laboratory of Prof. David Baker at the University of Washington, along with associated software. Cyrus Bench offers the world-leading protein structure prediction pipeline of Rosetta and SparksX, the top structure prediction software in the bi-annual CASP competition and the weekly CAMEO competition, as well as the only protein engineering software experimentally proven to design new proteins completely via software. Cyrus customers include 10 of the top 20 Global Pharmaceutical firms as well as smaller Biotechnology and Chemicals firms. Cyrus is financed by leading investors in both Technology and Biotechnology, including Trinity Ventures, Orbimed, Springrock Ventures, Alexandria Venture Investments, the W Fund, and others. For more information please visit https://cyrusbio.com/

OpenEye Scientific

OpenEye is a scientific leader in computational molecular design based on decades of delivering useful applications and programming toolkits. Our scientific approach changed perception of what's possible with the speed, robustness and scalability of our tools. OpenEye recently released Orion, the only cloud-native fully integrated drug discovery platform, combining unlimited computation and storage with powerful tools for data sharing, visualization and analysis in an open development platform. Founded in 1997, OpenEye Scientific Software Inc. is a privately held company headquartered in Santa Fe, NM, with offices in Boston, Cologne and Tokyo. For more information please visit https://www.eyesopen.com

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