Enamine Joins Agora Open Science Trust and Variational AI to Advance Open-Science Discovery of PRMT6 Inhibitors

March 24, 2026. Enamine, a leading integrated drug discovery contract research organization (CRO) has today announced its participation in an open-science collaboration with Variational AI and the Agora Open Science Trust. This initiative aims to advance the discovery of novel small-molecule inhibitors targeting PRMT6, which is a therapeutic target implicated in Spinal and Bulbar Muscular Atrophy (SBMA), a rare neuromuscular disorder currently lacking approved treatments that slow or halt the progression of the disease.

The initiative brings together expertise in medicinal chemistry, generative artificial intelligence (AI), machine learning, structural biology, pharmacology, and preclinical development across a global network of partners, including the Structural Genomics Consortium (SGC), the University Health Network (UHN), the University of Oxford, the Venetian Institute of Molecular Medicine (VIMM), and Charles River Laboratories. In keeping with Agora's open science principles, all data generated through the project, including molecular structures, assay results, and progress updates, will be made publicly available.

An Integrated Open-Science Discovery Framework

The collaboration operates within a fully transparent **design–make–test–analyze (DMTA)** framework that integrates AI-driven molecular design, rapid compound synthesis, and biological testing. Variational AI applies its **Enki™** generative AI platform to design novel PRMT6 inhibitor scaffolds and discover lead candidates.

To ensure rapid execution and reduce downstream attrition, the initial Enki™ generation is constrained to **Enamine REAL Space and its extended chemical space, Enamine xREAL**, the world's largest synthetically validated chemical space. By embedding synthetic feasibility directly into the design process, the collaboration emphasizes speed, learning, and iteration.

"This collaboration demonstrates how early discovery can move faster when generative AI is paired with synthetically validated chemical space. Enamine's xREAL Space enables the DMTA cycle to operate as intended — transforming the make step from a bottleneck into a strategic engine for rapid iteration, accelerating the identification of a novel PRMT6 inhibitor series."

— Iryna Iavniuk, CEO, Enamine US Inc.

"By coupling Enki's generative design capabilities with Enamine's synthetically validated REAL/xREAL space, we dramatically improved the design step of the DMTA cycle, allowing the program to rapidly identify and validate additional PRMT6 inhibitor series."

— Handol Kim, CEO, Variational AI

"This collaboration reflects a highly transparent and collaborative approach to rare disease drug discovery. By partnering with industry leaders such as Variational AI and Enamine, we can combine advanced AI-driven molecular design with world-class chemistry capabilities to accelerate the discovery of PRMT6 inhibitors for SBMA and expand therapeutic opportunities for this underserved disease."

— Dr. Peter Sampson, Vice President of Drug Discovery and Development at Agora Open Science Trust

Enamine's Role in Accelerating the DMTA Cycle

Within the partnership, Enamine contributes its expertise in the **'make' step of DMTA**, which is often the primary bottleneck in early discovery programs. Enamine's contributions include:

- Access to synthetically validated chemical space
- Rapid synthesis of novel compounds
- Iterative SAR exploration through analog and scaffold-based synthesis

About Enamine

Enamine Ltd., headquartered in Kyiv, Ukraine, is a scientifically driven integrated drug discovery contract research organization (CRO). Enamine maintains the world's largest and most reputable collections of building blocks (over 350,000), screening compounds (over 4.7 million), and a vast database of synthetically feasible chemical structures — **Enamine REAL Space**. The company offers an extensive portfolio of expertly designed libraries for hit discovery, including Diversity, Fragment, Covalent, Bioactive, and Targeted Libraries, and delivers fully integrated discovery services spanning advanced organic synthesis, library synthesis, medicinal chemistry, high-throughput screening (HTS), and preclinical biology to support life sciences and pharmaceutical research worldwide. For more information, please visit www.enamine.net

About Variational AI

Variational AI is a generative AI drug discovery company redefining the unit economics of small-molecule drug discovery and development. Based in Vancouver, Canada, Variational AI has developed Enki™, a proprietary generative AI foundation model that designs novel, optimized small-molecule drug candidates with improved potency, selectivity, and synthesizability to help partners accelerate early discovery and lead optimization. The company's multidisciplinary team of machine learning and drug discovery experts aims to transform how transformative therapeutics are discovered by leveraging state-of-the-art generative AI. For more information, please visit www.variational.ai

About Agora Open Science Trust

Agora Open Science Trust is a Canadian charity whose mission is to accelerate the discovery and development of affordable new medicines through open science. Agora's first initiative – M4K Pharma ('Medicines for Kids') – is using open science to drive preclinical and clinical development of a novel ALK2 inhibitor for the treatment of Diffuse Intrinsic Pontine Glioma (DIPG), a rare pediatric brain cancer. Agora's pipeline of collaborative open science drug discovery programs has recently expanded to include programs for Spinal Bulbar Muscular Atrophy (SBMA), a rare genetic neuromuscular disorder, and Primary Sclerosing Cholangitis (PSC), a rare liver disease — both of which currently have no approved treatment.

Agora continues to welcome collaborative funding partners whose support will help advance M4K2009 into clinical evaluation and sustain its mission to develop affordable medicines through open science.

You can support its mission at https://www.agoraopensciencetrust.org/donate-to-our-mission