

The Pistoia Alliance Releases Exchangeable HELM

Wilmington, DE, July 1, 2014 -The Pistoia Alliance and quattro research are pleased to announce the release of an extension to the HELM biomolecular representation standard.

HELM (Hierarchical Editing Language for Macromolecules) enables the representation of a wide range of biomolecules (e.g. proteins, nucleotides, antibody drug conjugates) whose size and complexity render existing small-molecule and sequence-based informatics methodologies impractical or unusable. HELM solves this problem through a hierarchical notation that represents complex macromolecules as polymeric structures with support for unnatural components (e.g. unnatural amino acids) and chemical modifications.

The set of monomers that comprise a HELM polymer are defined in a monomer database that is generally centralized within an organization. However, different organizations are likely to employ different monomer naming conventions, thus creating a challenge when exchanging structures between them in HELM format. To address this, the Pistoia Alliance and quattro research have worked together to develop an "Exchangeable HELM" file format which allows a HELM biomolecule set to include the structure definition of its component monomers, in essence combining the biomolecules and relevant subset of the monomer database into a single, portable file.

The package released today includes updates to:

- The HELM specification document.
- The software toolkit that includes all the functionality needed to implement a HELM-based system.
- The fully functioning macromolecule editor that enables the drawing of macromolecules and generation of HELM notation.

According to Sergio Rotstein, a Director in Pfizer's Research Business Technology organization and Domain Lead for the Pistoia Alliance HELM initiative, "This is the logical next step in the evolution of the HELM standard. Today we have enhanced the versatility of HELM, adding support for a key requirement from organizations in an increasingly collaborative environment. Institutes, CROs, software vendors and IT service providers can now more easily exchange biomolecule data and information, which ultimately benefits our whole industry."

Markus Weisser, Managing Director of quattro research, stated "The development of the exchangeable HELM format within the Pistoia Alliance was a win-win partnership for all participants. We received excellent support from the Pistoia Alliance and very positive feedback from our customers on this new standard. This further evolution of HELM is a major step for utilizing all the potential of biomolecules in the therapeutic area."

John Wise, the Pistoia Alliance's Executive Director, said, "This is an exciting day for the Pistoia Alliance. Macromolecules are increasingly important as therapeutic agents to treat or palliate human disease and this enhancement increases the impact that HELM has on its growing user base. By

developing HELM beyond the original Pfizer implementation the Pistoia Alliance makes another contribution to lowering the barriers to innovation in life science R&D.”

For further information about HELM please contact: Sergio Rotstein at sergio.rotstein@pistoiaalliance.org or visit our web site, www.OpenHELM.org.

About the Pistoia Alliance

The Pistoia Alliance is a not-for-profit, cross-company, members’ organization, formally incorporated in the State of Delaware. It is committed to lowering the barriers to innovation in life sciences R&D by improving the interoperability of R&D business processes through precompetitive collaboration. It draws its membership widely from life science R&D including Pharma R&D, commercial information providers, technology companies and publicly-funded research institutes. The Pistoia Alliance creates a virtual, open-innovation community by bringing together the key stakeholders to identify the root causes that lead to life science R&D inefficiencies and then develops best practices, technology implementations and standards to overcome these common obstacles. For further information about Pistoia please contact: Claire Bellamy at +44 7508 209365 (UK) and claire.bellamy@pistoiaalliance.org or visit our Web site, <http://www.pistoiaalliance.org/>

About quattro research GmbH:

quattro research GmbH is a software and service company located in Munich, Germany. quattro research offers services and products for data management to the pharmaceutical, chemical, and biotech industry. The primary focus of the company is the development of tools and services for compound registration and analysis of biological data. In several projects, quattro research has developed extensive knowledge in the management and registration of biologics, e.g. antibodies and peptides.

For further information see www.quattro-research.com or email weisser@quattro-research.com.

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