Pistoia Alliance

Collaborate to Innovate

The Power of Collaboration

The Pistoia Alliance is a global, not-for-profit members' organization collaborating to lower barriers to innovation in life science and healthcare R&D. Now more than ever, the world needs our industry to work together to solve common challenges and achieve scientific advances and breakthroughs. The fruits of our collaborative innovation can be seen across our portfolio of member-driven global projects, made possible through our legal framework for pre-competitive collaboration that enables companies to share resources, data, expertise and best practices.

PROJECT OPPORTUNITY TO DELIVER VALUE THROUGH PRE-COMPETITIVE COLLABORATION

DataFAIRy Bioassay Annotation

The goal of our DataFAIRy project is to convert unstructured bioassay protocol data into a high quality, FAIR data set and create a minimal information model to be used as a community standard.

"Richly annotated FAIR bioassay data has been very valuable for an internal data integration project, where it has provided additional terminology aiding the assimilation of the chemogenomics datasets used by the machine-learning models. The extra annotations better harmonize our dataset with those from external partners, enabling the federated platform to provide superior multi-task predictions across range of panels and safety screens in a privacy preserving way"

– Lewis Mervin
Machine Learning and Cheminformatics Expert
Molecular AI, Discovery Sciences, BioPharmaceuticals R&D
AstraZeneca

UPCOMING EVENTS

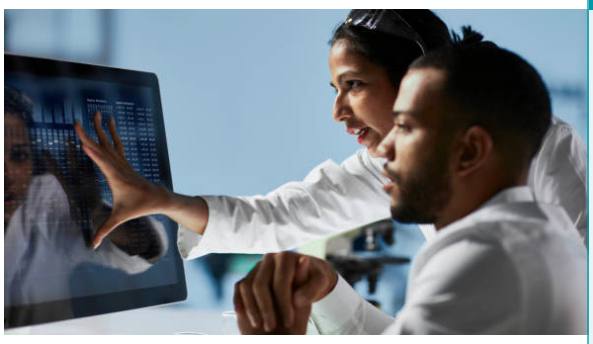
Don't miss these opportunities to connect with other advocates for life sciences innovation.

Explore more of our educational webinar series at www.pistoiaalliance.org/events

PROJECT RESOURCES

The FAIR Toolkit for Life Science Industry

Webinar On-Demand: Beyond FAIR Data: Consumable Knowledge for R&D Innovation



Why is this project important to the life science R&D industry?

It is estimated that there are over 1.2 million bioassay protocols in existence. They are partly annotated in databanks such as ChEMBL and PubChem, but the quality of these annotations is variable. In Phase I of our project, we plan to annotate between 5,000 and 20,000 assay protocols selected on the bases of the greatest stakeholder interest. We will also promote an information model for assay annotation as a community standard for the publication of new assay.

What will this project achieve?

The project will enable:

- Costs to be shared for converting published (unstructured) biological assay descriptions into high-accuracy machine-readable FAIR data objects described by a community-defined data model tailored to address current and future essential business questions.
- The data model to be FAIR and based on public ontologies such as the BioAssay Ontology.
- The data model to be developed in a community-wide collaborative way and to eventually be promoted to the industry standard for the publication of assay metadata.
- The generated FAIR data to be made available to the public after a period of exclusivity for partnering organizations.

Be a part of that future by joining one of these developing projects!

Reach out to us at ProjectInquiries@PistoiaAlliance.org to learn more or join the next member meeting.

Project Focus/Goals

Utilizing the Pistoia Alliance's pre-competitive framework for training and networking to:

- Develop an assay annotation standard that will be used by publishers and assay kit vendors to publish new assay protocols
- 5,000 - 20,000 assay protocols converted in phase I
- Establish pipeline for intake of assay protocols for annotation
- All annotations that pass QC visible in PubChem

Project Benefits

- Increased efficiency of bench science
- Save significant costs for individual organizations by performing this work in a shared model
- Standardization and reproducibility of science – provides benefits to both scientist and publisher communities
- Automated data mining of assay information assists kit vendors in developing solutions for their customers and CRO's working with assays

Project Supporters

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