

Poster Abstract Jeremy Yang:

Linking the Open Phenotypic Drug Discovery Resource (OPDDR)

OPDDR is a collaboration involving Eli Lilly's Open Innovation Drug Discovery (OIDD) program, NIH National Center for Advanced Translational Science (NCATS), and the Indiana University Integrative Data Science Lab (IDSL). Compounds from the NCATS Pharmaceutical Collection (NPC) were screened against the OIDD assay panel, with relevance to cardiovascular diseases, diabetes, cancer and endocrine disorders. Methodology and results have been published in the literature, a home page, and via PubChem Bioassay. The OPDDR team understands that linking and integrating these data with relevant public resources magnifies their benefit to the scientific community, and considers OpenPHACTS as an ideal vehicle for this integration. Accordingly, the IU IDSL has been tasked with translating the OPDDR dataset to RDF with a data model aligned with OpenPHACTS and other public standards. This poster describes the resulting dataset, and its biomedical research value, with focus on the process of linking and integrating a novel dataset with OpenPHACTS and other public resources and standards, especially ChEMBL and PubChem. It is important to note that "standards" in this sense implies communities of developers and users, and joining with these communities involves technical and non-technical challenges, but offers considerable rewards through shared, aligned efforts.