Bridging the Gap: Integrating Public Bio-Ontologies into Enterprise Data Management Strategies - Abstract

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Abstract

Publicly available bio-ontologies are utilised by many companies in the biomedical and biotech industries, not just for the application of Findable, Accessible, Interoperable and Reusable (FAIR), but also as a way to leverage the collective knowledge of the community. Yet, most public bio-ontologies are not fully fit for purpose due to specific organisational requirements. At Novo Nordisk Research & Early Development, we are digitally transforming our data management landscape with an Ontology-Based Data Management (OBDM) strategy. Here we describe how we incorporate public bio-ontologies into our OBDM system, addressing both our technical blueprint and our change management approach. We will also explore how the OBDM system plays a crucial role in our organization's digital aspirations in discovery fuelled by artificial intelligence, and data federation. Our goal is to offer insights for FAIR practitioners and developers regarding the challenges faced by large-scale pharmaceutical companies, share the lessons we have learned, and to foster dialogue with the wider bio-ontology community.

Keywords
ontology, industry, FAIR, data management