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BuDb: A Curated Drug Discovery Database for Buruli Ulcer

Daniel Tweneboah Anyimadu
Department of Biomedical Engineering

Background: Buruli ulcer (BU), caused by Mycobacterium ulcerans, is an ulcerative and chronic skin disease. Therapeutic inefficacy and toxicity of presently available regimens are extremely alarming. Yet, there is a dearth of databases solely dedicated to Buruli ulcer drug discovery. In order to facilitate the development of BU drugs, this project developed a “one-stop-shop” knowledgebase for supporting BU drug discovery.

Methods: The Buruli ulcer database (BuDb) was created by first curating data from biological databases and journal articles. The datasets provide comprehensive information on the various drug targets, tested compounds, existing drugs, ethnopharmacological plants and information on the genome of M. ulcerans. Regarding the architectural framework for the database, BuDb was built on Apache HTTP server and uses MySQL server to store data. The responsive front-end query is implemented in JavaScript, PHP, HTML5 and CSS3.

Results: The BuDb has been implemented with accessibility features for querying. BuDb is the first useful online repository of its kind integrated with enriched datasets that can aid in the

Biography

Student Daniel Tweneboah Anyimadu is an Professor of Department of Biomedical Engineering, School of Engineering Sciences that is focused on the Information Technology, Education, Health, and Biomedical industry sectors. He is creative, results-driven, and has 18+ years of experience in Department of Biomedical Engineering.