**BUDGET (& Justification)**

**Total = HKD 2,491,680**

1. **One-line vote items**

**Staff salaries**

SRA x 2 x 12 months = HKD 35,545 x 2 x 12 months = HKD 853,080

RA I x 5 x 12 months = HKD 24,310 x 5 x 12 months = HKD 1,458,600.

Total = HKD 2,311,680

The proposed study requires a total of two full-time Senior Research Assistants (SRA) and five Research Assistant I (RA I) for 12 months.

One SRA and two RA I under the Department of Computer Science will be required to collect data from more than 30 heterogenous bioinformatics data sources, perform data cleaning, manually reconciliate and map the different indexing systems used in different databases into a common ID, integrate data into a large-scale knowledge graph, conduct extensive data analysis, independently cross-check results and generate user interface for an open-access data platform.

One SRA and one RA I, under the Department of Pharmacology and Pharmacy, preferably with background in pharmacy and biostatistics, will be required to collaborate with researchers in computer science to manually develop, review and verify the drug and disease mappings to allow merging and combining of more than 30 bioinformatics data sources for building the knowledge graph, independently cross check results to ensure data quality and prevent human errors, interpret findings from raw knowledge graph outputs, perform systematic literature search on shortlisted drug candidates, and coordinate the project collaboration.

Two qualified RA I for infectious disease and cardiology departments will be required to assist in reviewing findings and interpreting them in clinical context, and assist in evaluation of quality of knowledge graph outputs to enhance the quality of the knowledge graph.

**General expenses** (max HKD 200,000 without quotation)

**Publication costs:** HKD 30,000

Funds are requested for publications by open access options to enable free and immediate access of the full version of the articles online. This enhances the dissemination of study findings to the general public and health professionals globally, avoiding the need for subscription to the journal for timely access.

**Data platform maintenance costs:** HKD 150,000

Funds are requested for the set up and maintenance of an open-access data platform that will make the generated knowledge graph available to researchers worldwide, as well as for set up and maintenance of a user interface to facilitate healthcare professionals to explore the knowledge graph for their own topics of interest.