



香港城市大學  
City University of Hong Kong

## GeneBox: an interactive app for teaching and learning biology

**Project Number:** 6000903

**Principal Investigator:** Prof. LIDSKY Peter V.

**Grant Type:** TDG

### **Abstract:**

GeneBox is an interactive learning app with video game functionality that can teach students concepts about biology, particularly genetics, cellular, and molecular biology, with the main focus on gene regulatory networks. Students should design their own circuits that define the microbe's behavior. GeneBox allows the delivery of complex algorithmic information in an interactive and joyful environment. The proposed project aims to improve GeneBox as a compelling game and as a didactic tool to boost Generation Z students' learning of biology. If successful, GeneBox will be used by teachers in various biological disciplines at CityU and worldwide, and the project will be able to fund its future development through donations or sales.