Introduction
SGLT2 inhibitors are well known for their protective effect on various organs, and especially the inhibitory effect on cardiovascular events has been attracting attention in recent years. The most common cardiovascular event, ischemic heart disease, is closely related to lifestyle diseases such as hypertension and diabetes mellitus. In this research, we evaluated cardioprotective effect in an ischemia-reperfusion model of the Langendorff system.

Methods
Langendorff assay, Animals: guinea-pig
Data Collection:
- Electrocardiogram (HR, RR, PR, QRS, QT, QTc)
- Fridericia’s formula: QTc=QT/RR^(1/3)
- Left-ventricular Pressure (LVPSP, LVEDP, LVDP, LV dP/dt max)

Drugs:
- DMSO (vehicle), Propranolol (beta-blocker), Verapamil (calcium channel blocker), Dapagliflozin (SGLT2 inhibitor)

Protocol of Experiment:
- Perfusion
- Application of Drug
- Ischemia (Stoppage of Perfusion)
- Reperfusion

Results

Propranolol

Verapamil

Dapagliflozin

Conclusion
The results indicate that cardioprotective effect can be assessed with the Langendorff system.