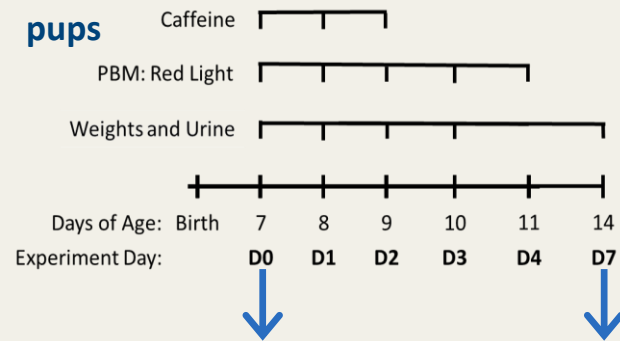


# Effects of photobiomodulation (670nm red light) and caffeine treatment on acute kidney injury in a hypoxic ischemic neonatal animal model.

## METHODS

### Modified Rice Vannucci model of HIE

SD rat pups



#### HIE:

- Ligation of left carotid artery
- 1 hr recovery with Dam
- 2 hr hypoxia (8% O<sub>2</sub>)
- Return to Dam

Sample collection:

- Kidney
- Urine

#### HIE:

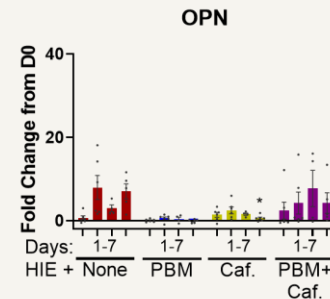
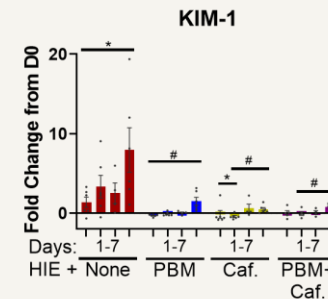
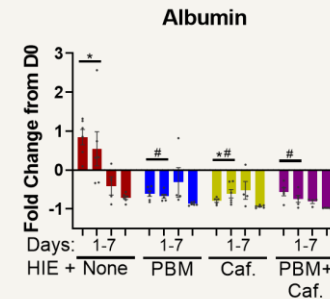
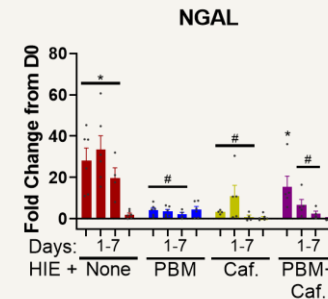
Histological detection of kidney injury

Elevated urinary biomarker levels (NGAL, Albumin, KIM-1)

Decreased weight gain

Treatment with photobiomodulation or caffeine ameliorates AKI

## OUTCOME



**CONCLUSION** Photobiomodulation and caffeine reduces AKI diagnosed by urinary biomarkers and confirmed by electron microscopy findings.