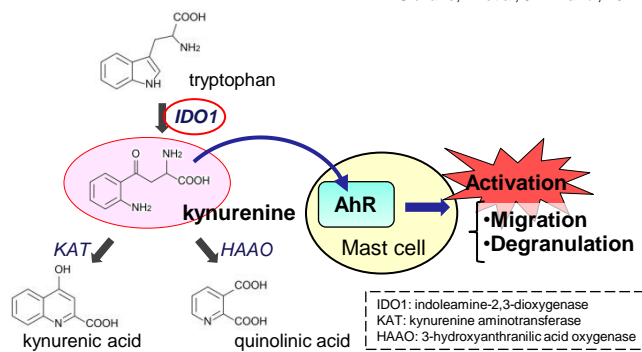


## INTRODUCTION

- The involvement of mast cells in interstitial cystitis (IC) has been indicated.
- Kynurenine, one of the tryptophan metabolites, is an endogenous agonist of aryl hydrocarbon receptor (AhR).
- Kynurenine/AhR signaling has been reported to regulate mast cell activation.

Sibilano, R. et al; *J Immunol*, 2012



- The relationship between kynurenine/AhR signaling and IC has not been studied.

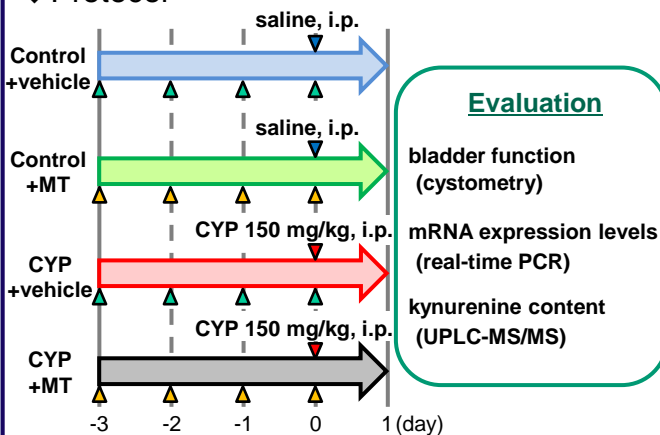
**We examined the role of kynurenine/AhR signaling in the pathology of IC using a rat model of cyclophosphamide (CYP)-induced cystitis.**

## METHODS

### ◆ Animals

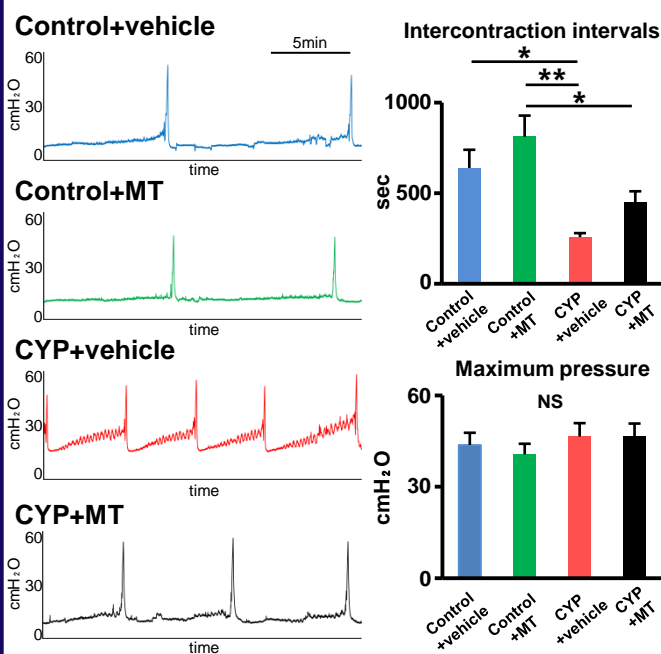
10- to 11-week-old female Wistar/ST rats

### ◆ Protocol



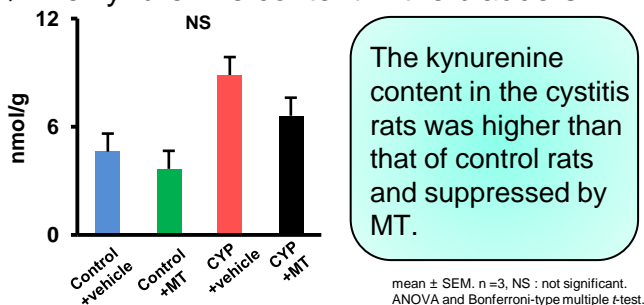
## RESULTS

### ◆ Cystometry

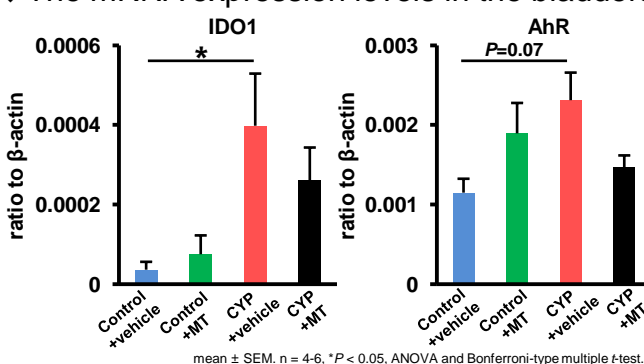


The inhibition of the kynurenine pathway improved the intercontraction intervals of CYP-induced cystitis rats.

### ◆ The kynurenine content in the bladders



### ◆ The mRNA expression levels in the bladders



## CONCLUSIONS

- The kynurenine/AhR signaling was enhanced in the bladders of cystitis rats and suppressed by MT.
- Inhibition of the kynurenine synthesis improved the urinary symptoms.

**Our study suggests that the kynurenine/AhR signaling might be a new target for treatment and prevention of IC.**

## DISCLOSURE

Affiliations to disclose: None.

Funding for speaker to attend: Self-funded