Targeting MRGPRX2 with venom peptide P17: A therapeutic avenue for DSS-Induced colitis

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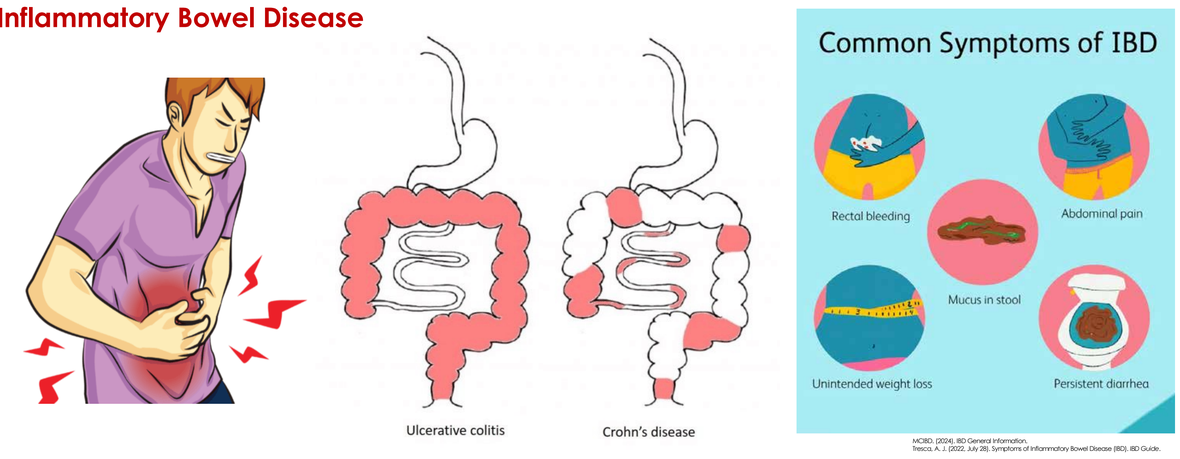
Introduction

Inflammatory Bowel Disease

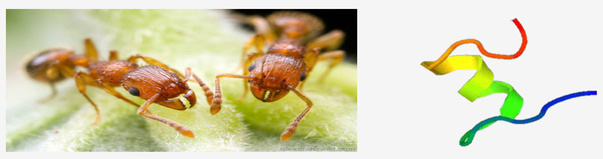


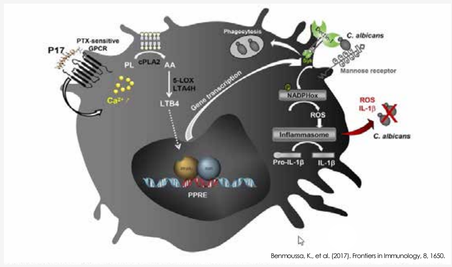
Peptide P17

Novel Anti Microbial Peptide (AMP) from the venom of *Tetramorium bicarinatum*

LFKEILEKIKAKL-NH2

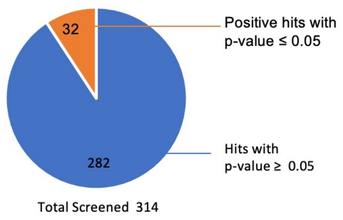
Known to activate an unknown GPCR





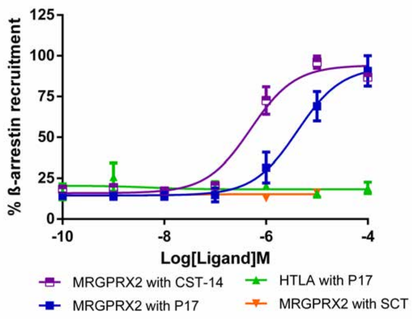
Results & discussion

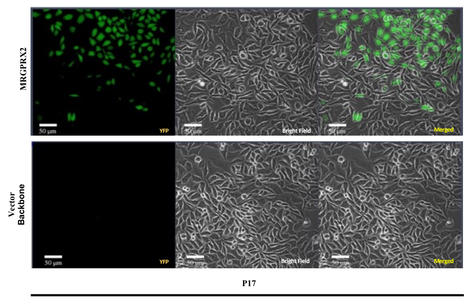
Identification of P17 receptor

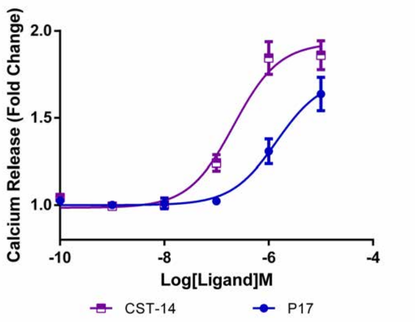


β-arrestin recruitment assay screening of GPCRs

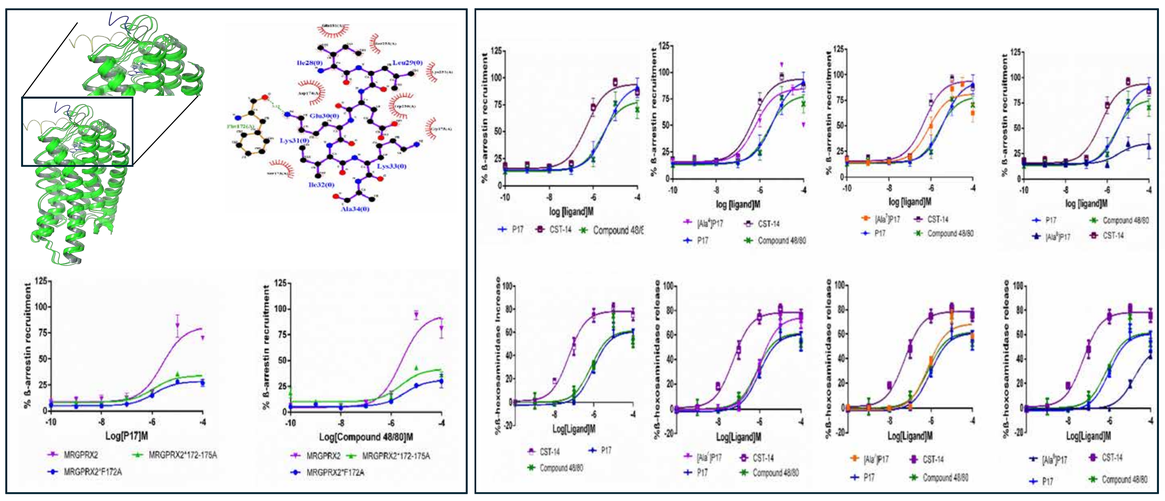
Group	GPCRs
Class A	262
Class B	16
Class C	17
Adhesion	17
Other	2
Total	314



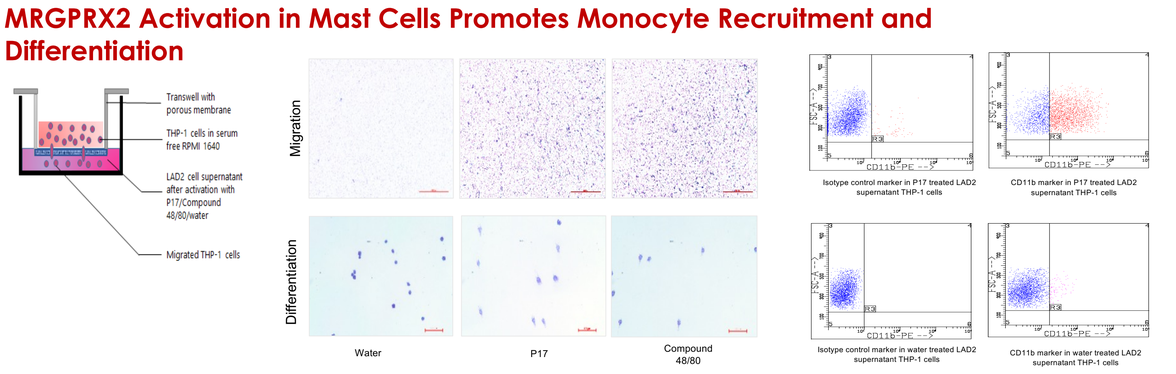


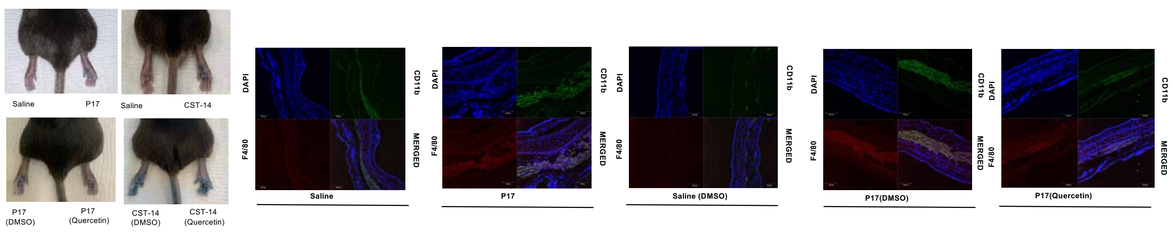


Structure-Activity Relationship of P17 and MRGPRX2 Activation



MRGPRX2 Activation in Mast Cells Promotes Monocyte Recruitment and Differentiation





Acknowledgements & affiliations

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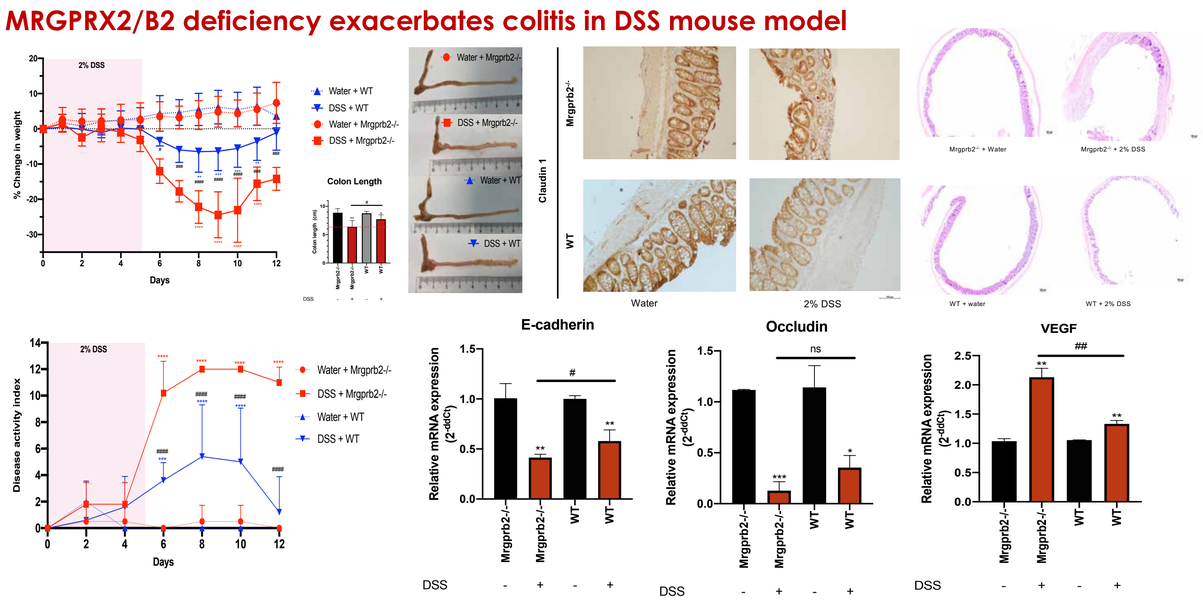
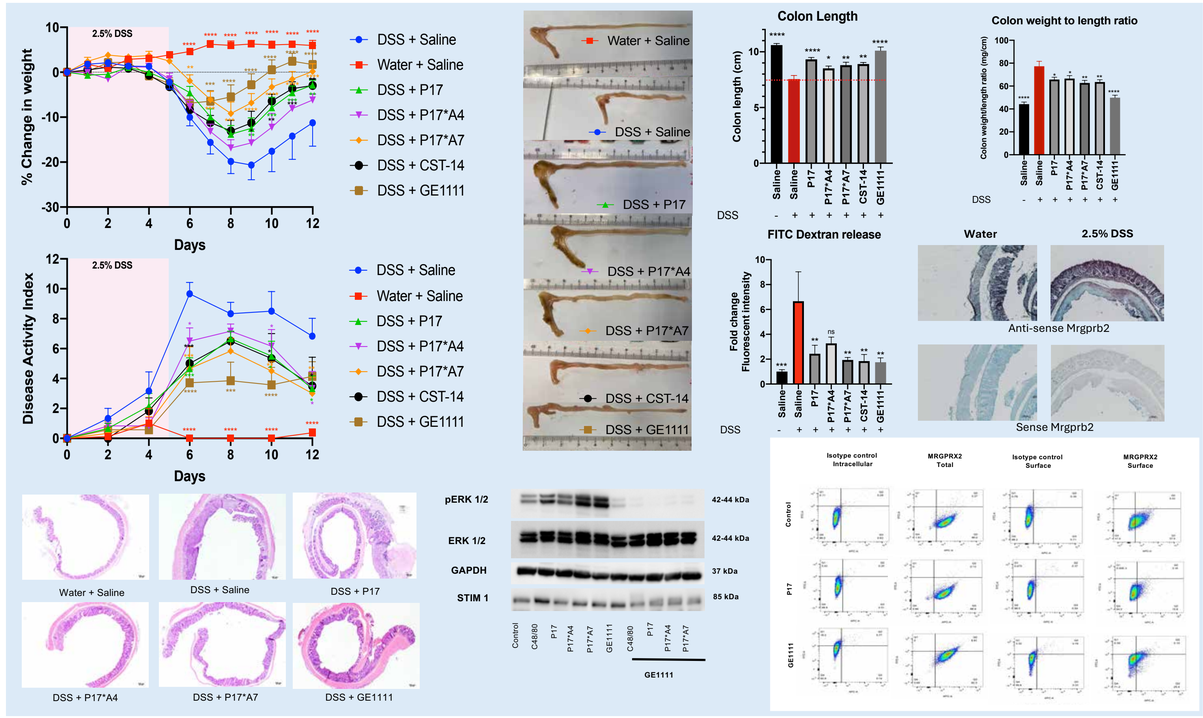
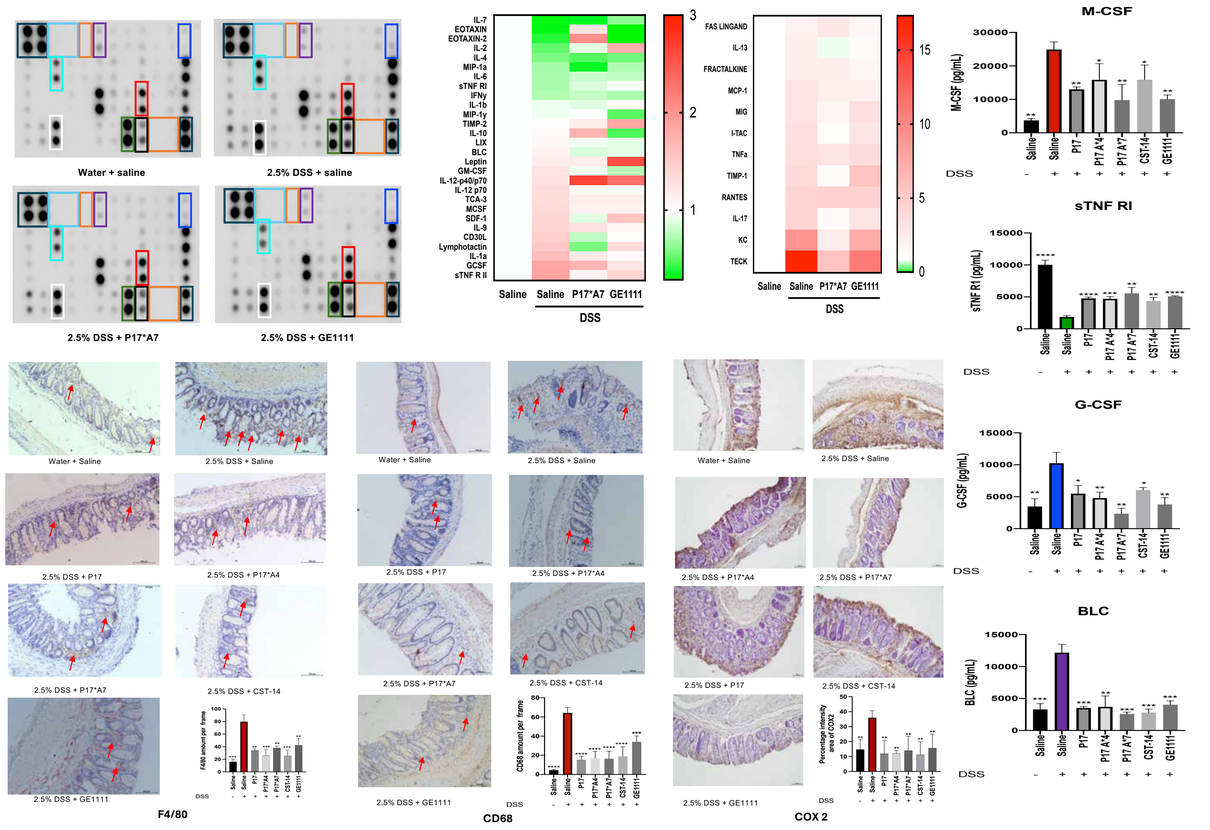
MRGPRX2/B2 deficiency exacerbates colitis in DSS mouse model



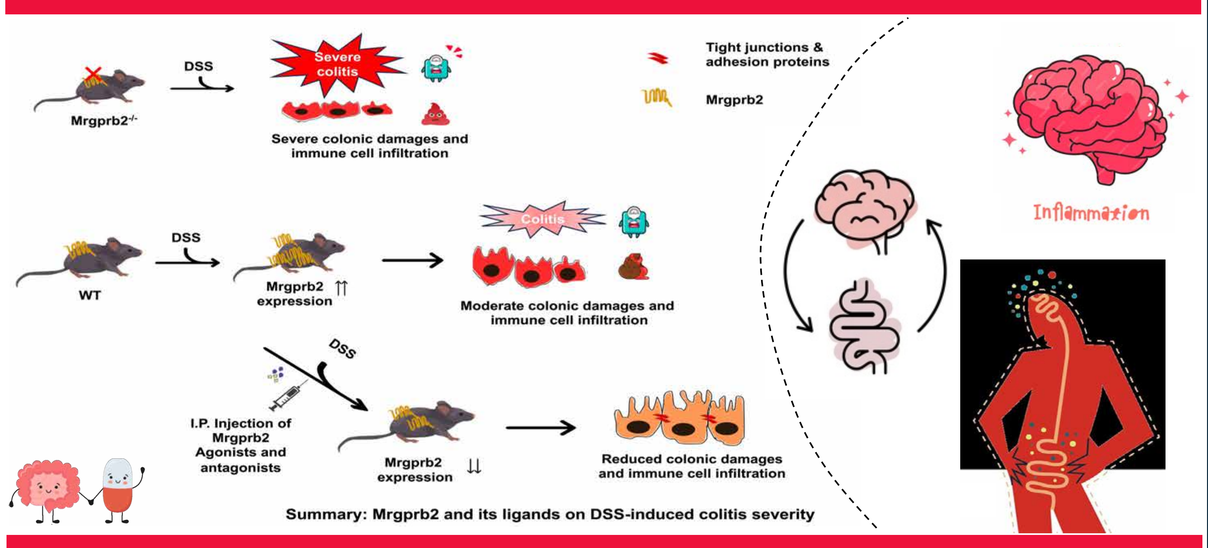
MRGPRB2 ameliorates severity of colitis in DSS mouse model



MRGPRB2 ligands reduce inflammatory cytokines and immune cell infiltration in DSS-Induced Colitis mice model



Conclusion & future prospective



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P17-MRGPRX2

P17-Colitis