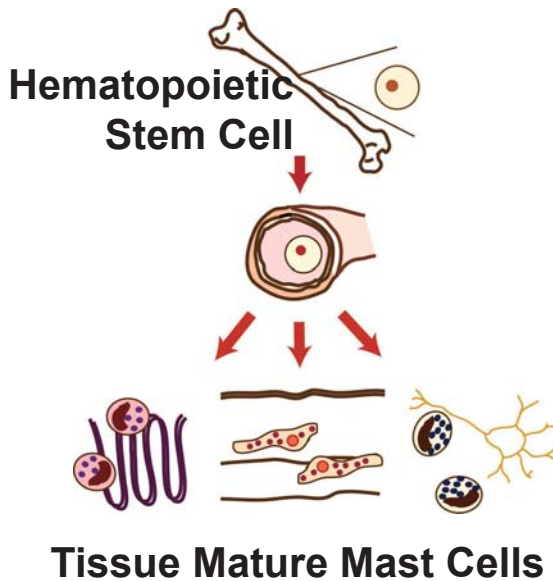


Detection of low-molecular compounds that can induce inflammatory responses

Satoshi Tanaka

Department of Immunobiology, Graduate School of Medicine,
Dentistry and Pharmaceutical Sciences, Okayama University



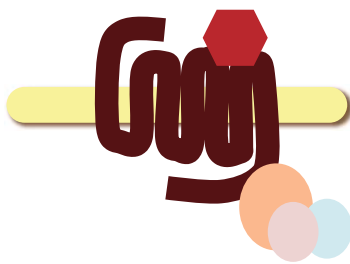
Local mast cells release pro-inflammatory mediators in response to various stimuli.

Local mast cells are heterogeneous populations.



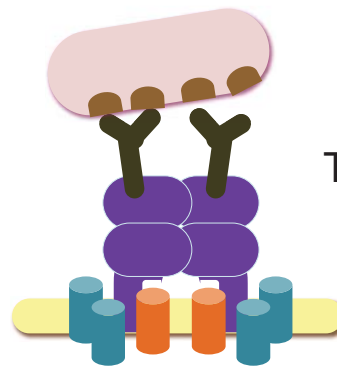
We have established **a novel model of murine cutaneous mast cells**

This model enables us to evaluate **IgE-independent degranulation** of mast cells



IgE-independent degranulation

Urticaria
Contact dermatitis
Atopic dermatitis etc.



IgE-dependent degranulation

Type I allergy

Mrgpr family

Mrgpr family was identified as sensory nerve-specific genes
MrgprX2 is expressed in human cutaneous mast cells



We made **a simple assay to measure the Mrgpr activation**.
Mrgpr family is a novel target of skin sensitization test.