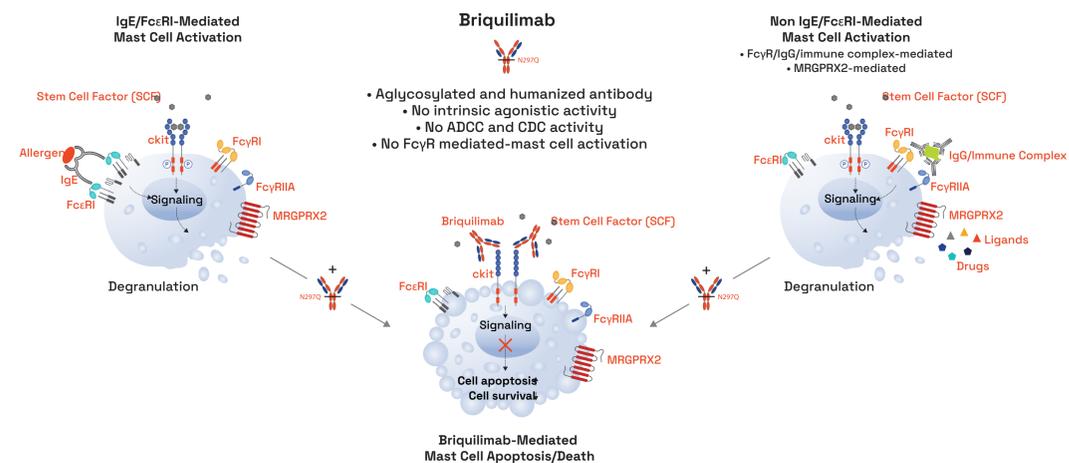




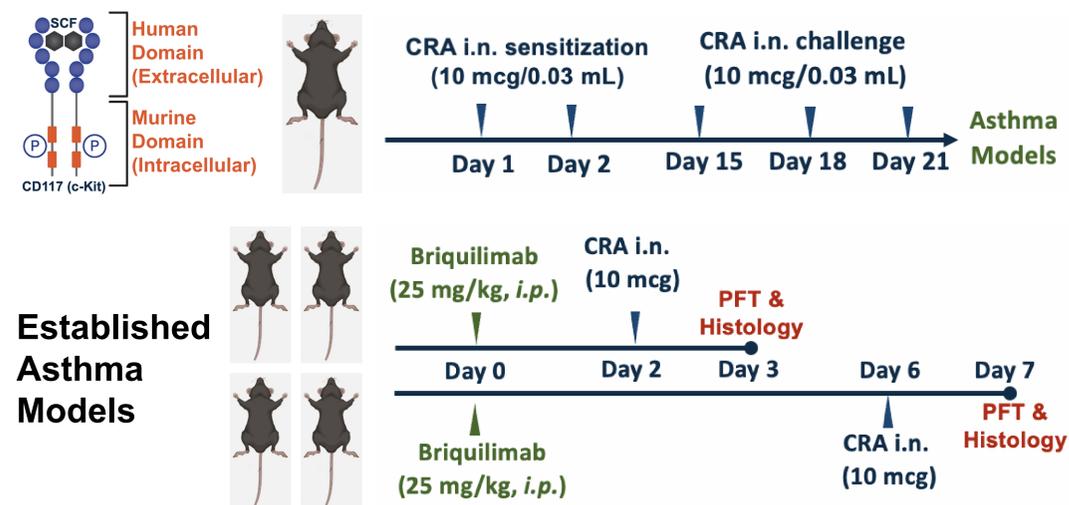
# Briquilimab, an Anti-Human CD117 Antibody, Effectively Treats Cockroach Allergen-Induced Asthma Model in Mice Expressing Chimeric Human/Mouse CD117

Mang Yu, Sambidhan Kattel, Andrew Wells, Revati Nerkar, Karl Meneses, Hye-Sook Kwon, Wendy W. Pang  
Jasper Therapeutics, Inc., Redwood City, CA, USA

Briquilimab can potently inhibit the signaling pathway of human stem cell factor (SCF) and CD117 (c-Kit), thereby regulating mast cell (MC) survival and functions in the context of allergic disorders, including allergic asthma and atopic dermatitis.

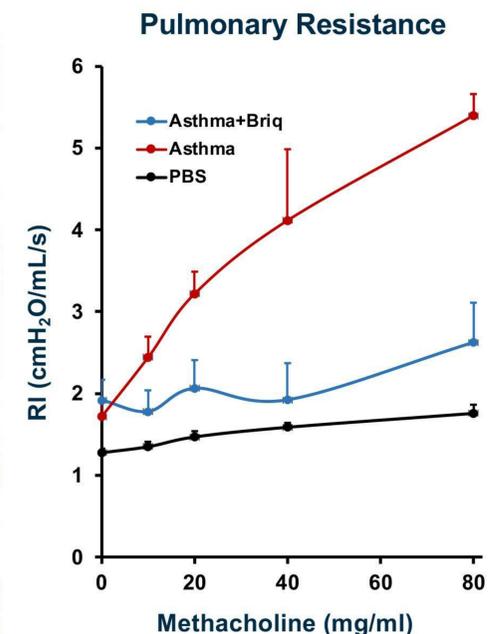
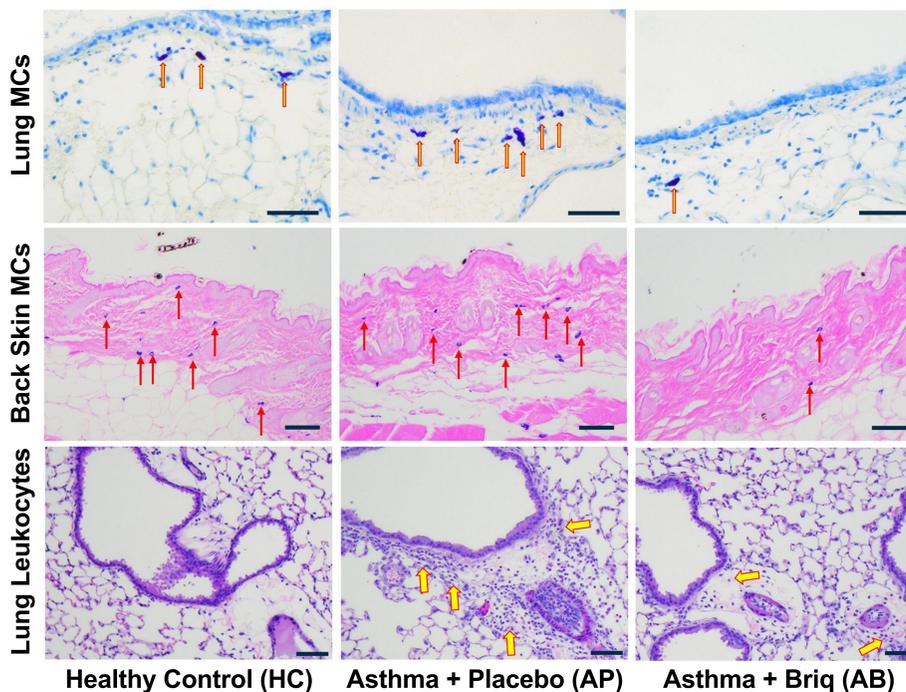


The transgenic h/mCD117 mice expressing both the functional human extracellular and murine intracellular domains of CD117 (c-Kit) enable proof-of-concept efficacy testing of briquilimab for allergic asthma by eliciting clinically relevant models in h/mCD117 mice following exposure to cockroach allergen (CRA).

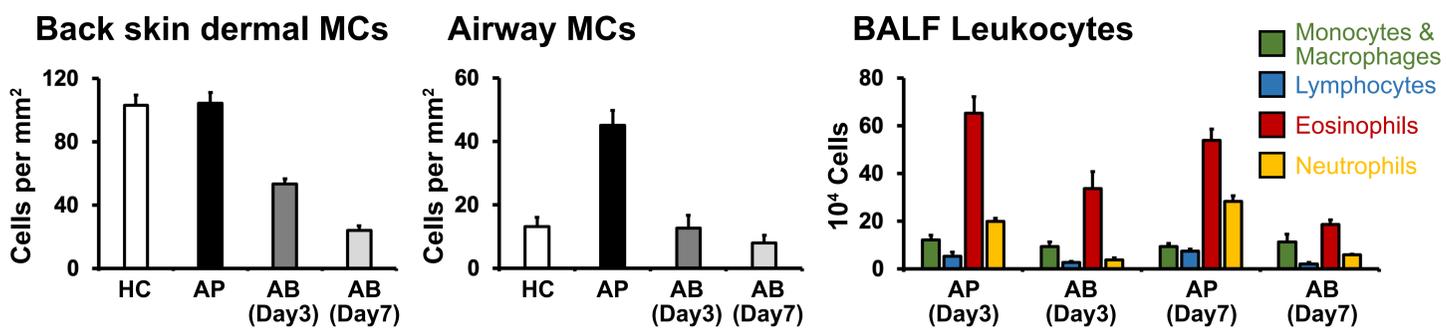


PFT: Pulmonary function testing

Three days after one-time therapeutic briquilimab (Briq) treatment, established asthma models exhibited significant decreases in the numbers of mast cells in the lung and the back skin as well as significantly decreased pulmonary resistance and airway inflammation following allergen exposure (Scale bar = 50 μm).



Depletion of mast cells, by briquilimab, may provide a novel therapeutic approach for patients with asthmatic disease.



## CONCLUSIONS:

- A single dose of briquilimab can deplete mast cells (MCs) in both inflamed (lung) and non-inflamed tissues (back skin) of an asthma model elicited in h/mCD117 mice.
- Briquilimab's ability to deplete MCs contributes to its therapeutic effect on asthma models elicited in h/mCD117 mice.

## TAKEAWAYS:

- Mast cells play a key role in asthma pathogenesis.
- Briquilimab can potentially target MCs in the treatment for allergic asthma.

## ACKNOWLEDGEMENTS:

- Drs. Stephen Galli & Judith Shizuru, Stanford University.
- Edwin Tucker, Daniel Adelman, Patricia Carlos, Ryan Taylor, Aaron Miller, Ameer Alameddin, Kavitha Arulprakasam, and Anne Le, Jasper Therapeutics, Inc.

Briquilimab is an investigational product and not approved for any indication.