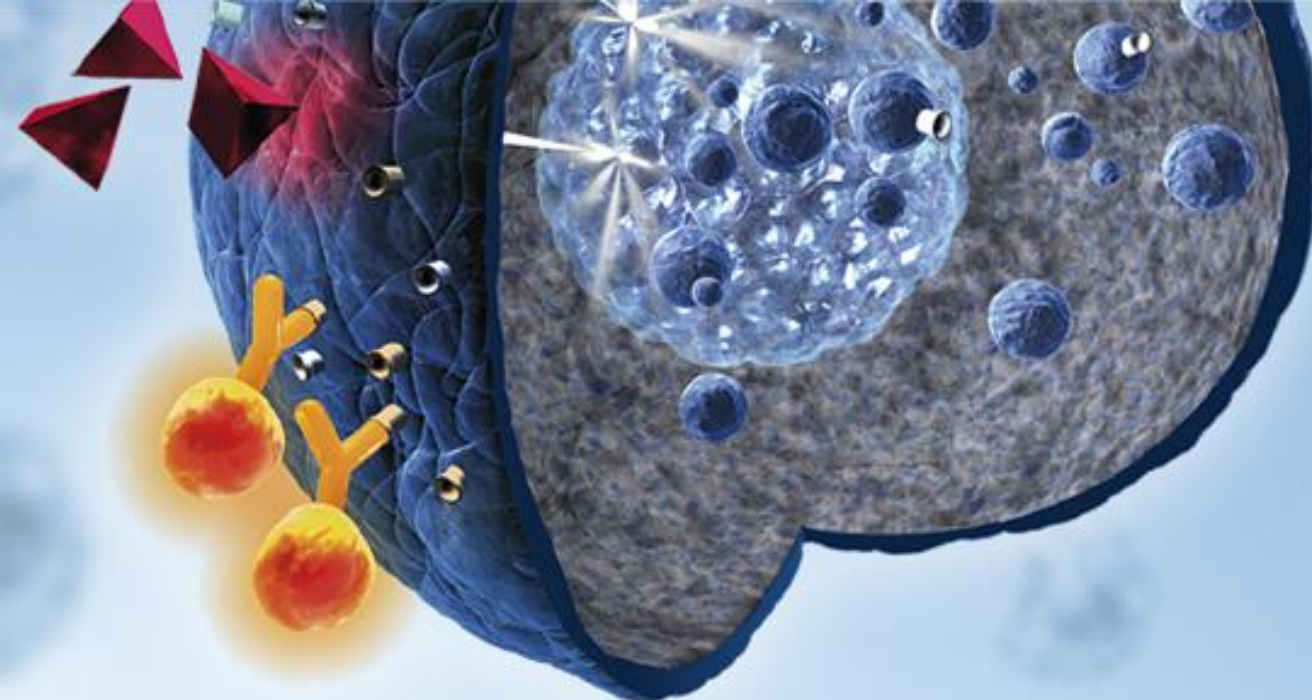


# Indirect Basophil Activation Test (iBAT): A User-Friendly Protocol for Plasma and Allergen Testing

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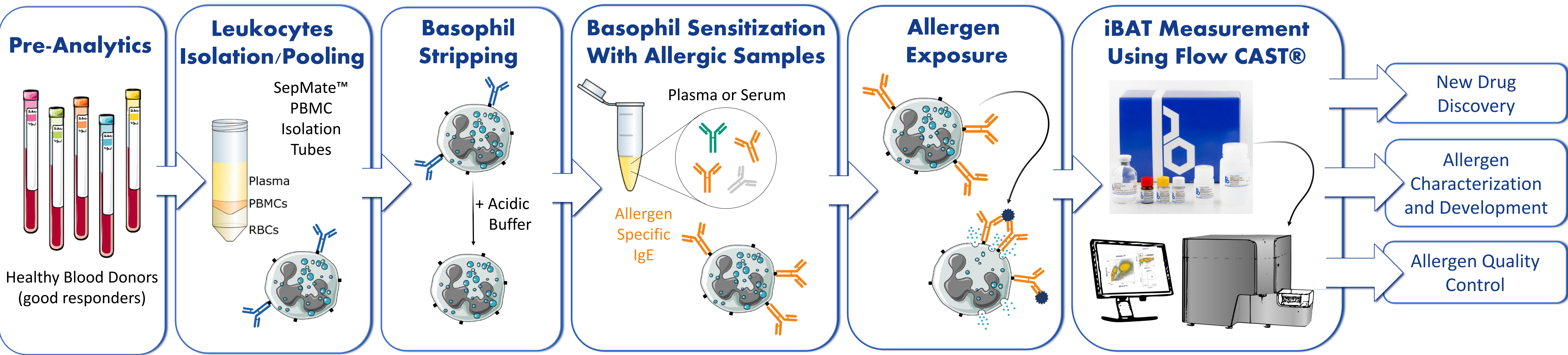
\*fri@buhlmannlabs.ch



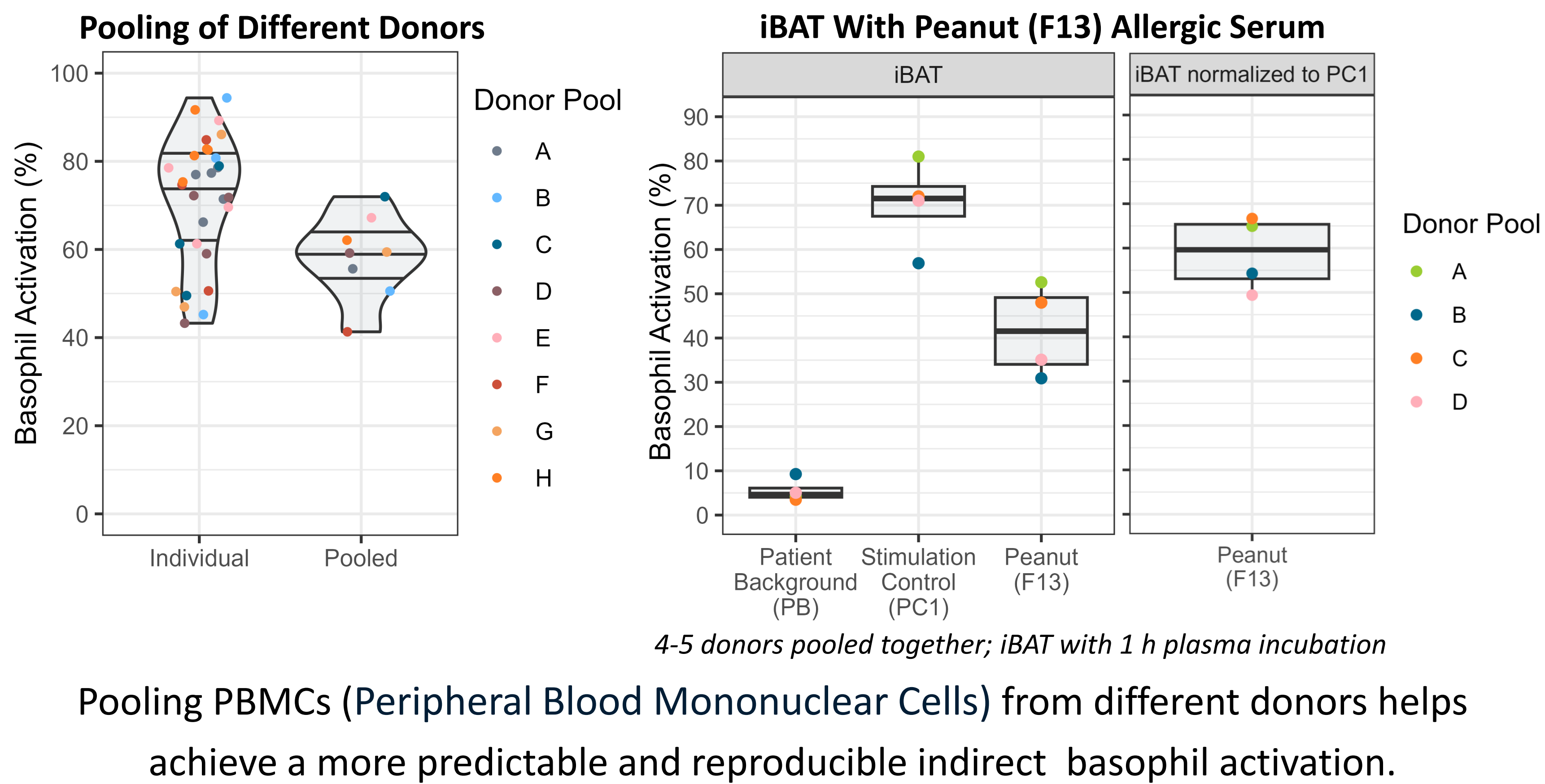
## Introduction

The indirect basophil activation test (iBAT) is an *in vitro* assay that uses basophils from non-allergic blood donors that are sensitized through the incubation with serum or plasma from allergic individuals to their culprit allergen. The subsequent allergic reaction is induced by the specific allergen *in vitro* and measured by flow cytometry.

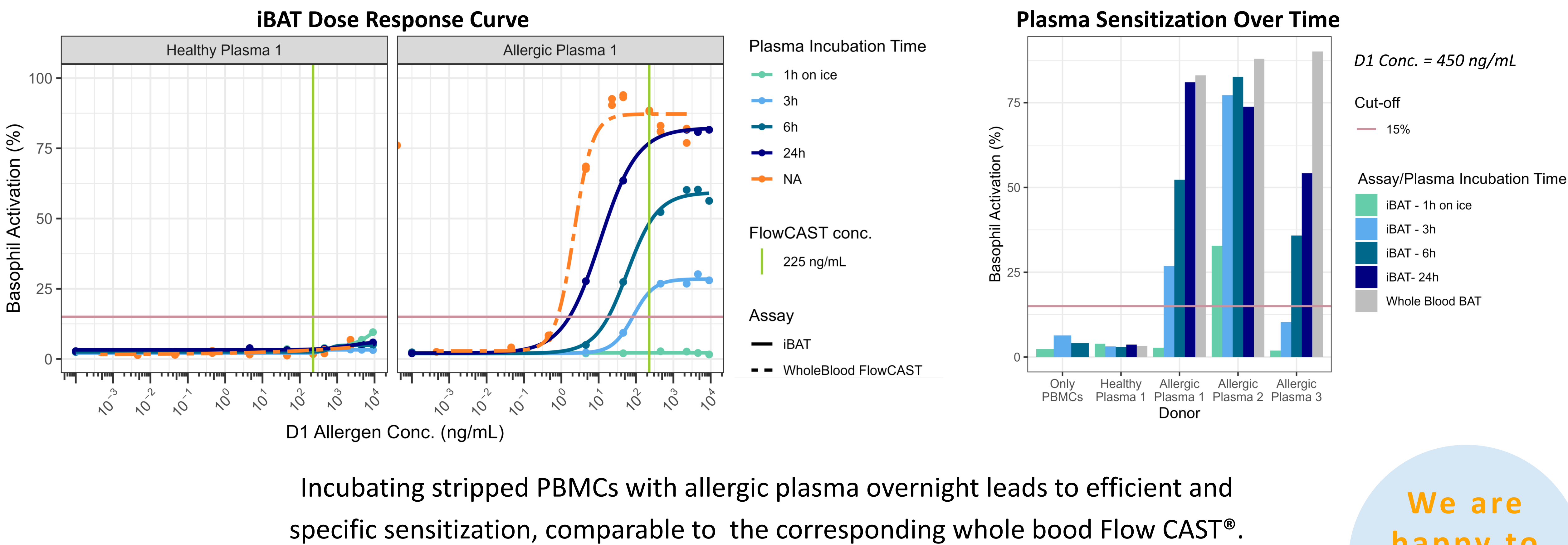
**Advantage:** unlike BAT, it does not require fresh blood from allergic patients.



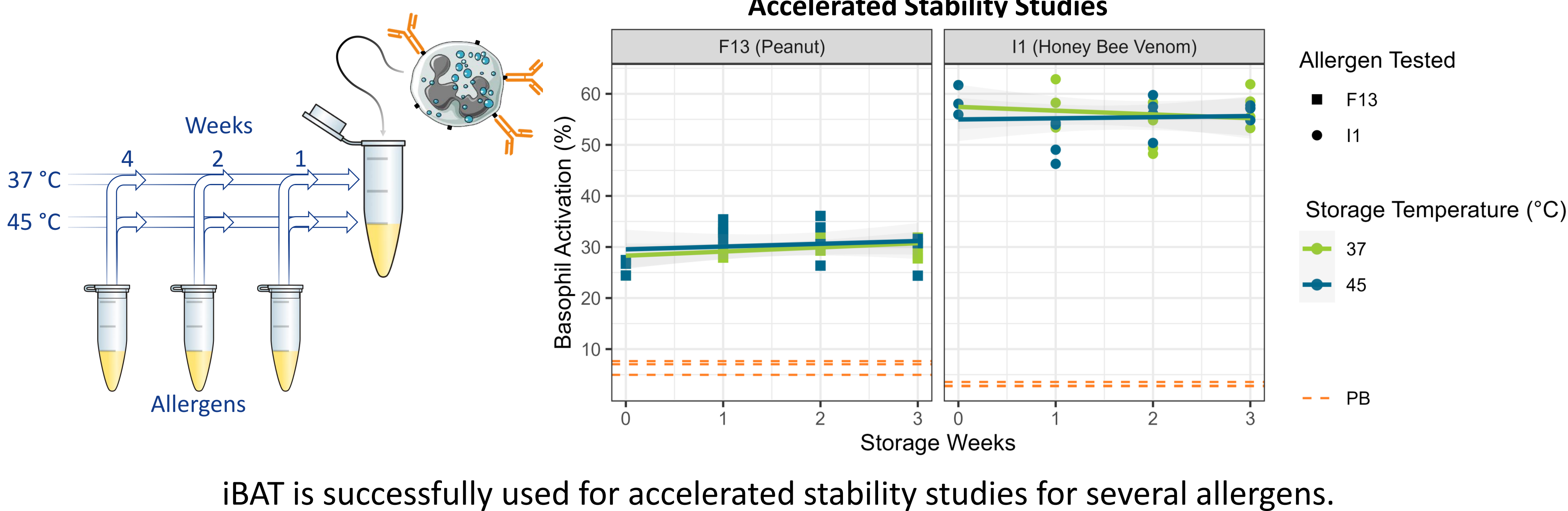
## Donor Pooling



## BAT vs iBAT on House Dust Mite (D1) Allergic Donors



## Possible Application



## Summary

A reliable and user-friendly iBAT protocol was developed using **BÜHLMANN Flow CAST®**.

- Advantages:** iBAT is accessible and easy to implement in any laboratory.
- Key points:** Pooling donors decreases the heterogeneity, thereby allowing for robust and reproducible results. iBAT can be performed in 1-2 days, depending on the purpose and characteristics of the plasma. Isolated pooled PBMCs can be stored for up to 72 hours at 8 °C in BÜHLMANN stimulation buffer, offering increased experimental flexibility.
- Allergens tested:** Peanut (BAG-F13), Hazelnut (BAG-F17), House Dust Mite (BAG-D1), Cat Epithelium (BAG-E1), Wasp Venom (BAG2-I3), Honey Bee (BAG-I1).
- Applications:** iBAT can be useful in allergen and plasma characterization, quality control and drug development. Furthermore, preliminary data suggest its potential in allergy diagnosis.

We are  
happy to  
share our  
protocol

