



**University of Dundee**

**The case for impulse oscillometry in the management of asthma in children and adults**

Galant, Stanley P.; Komarow, Hirsh D.; Shin, Hye-Won; Siddiqui, Salman; Lipworth, Brian J.

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Figure 1

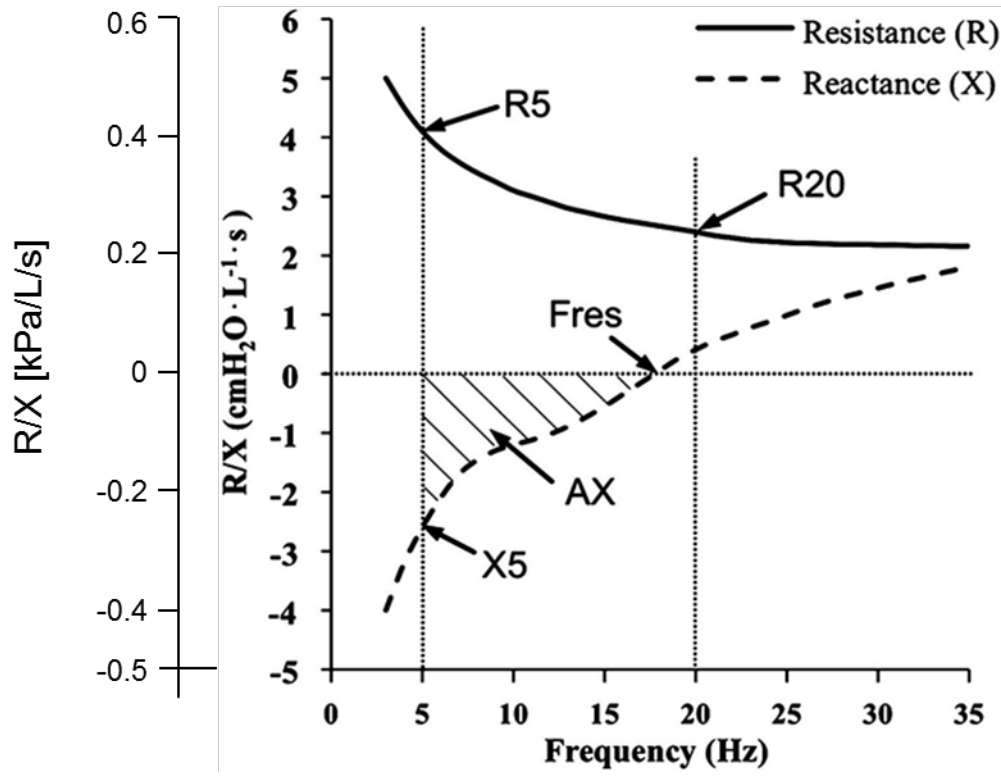


Figure 2A

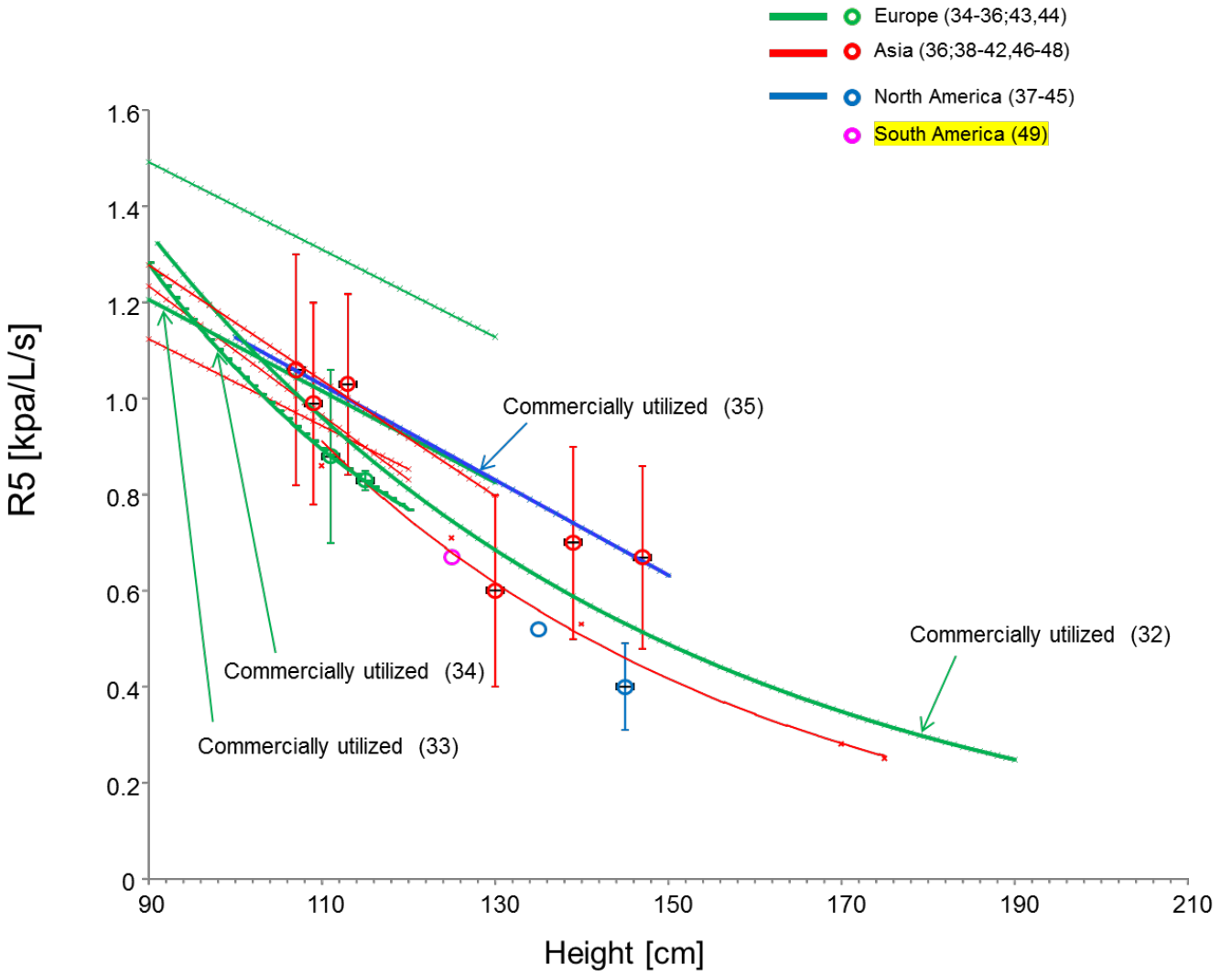


Figure 2B

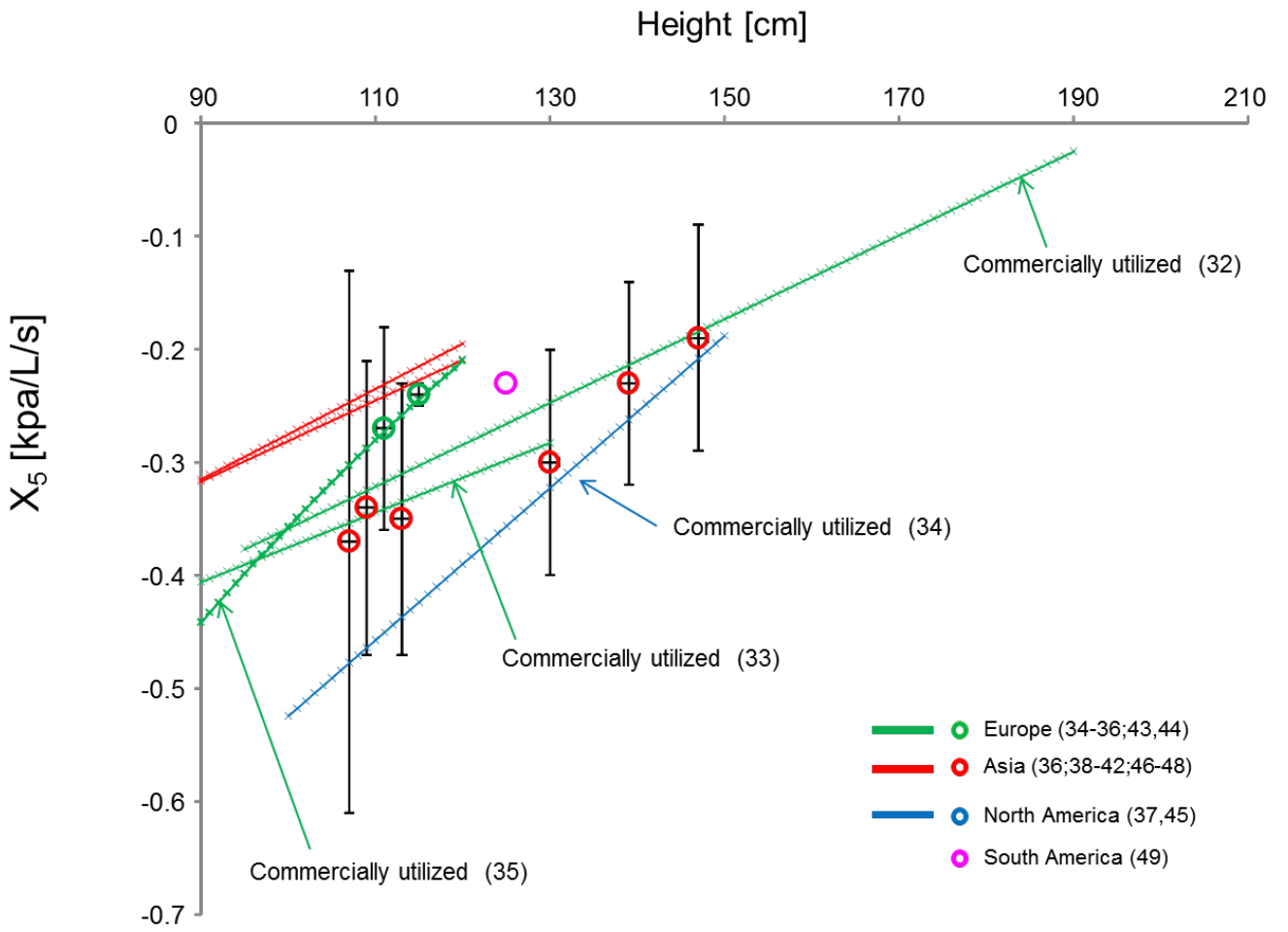
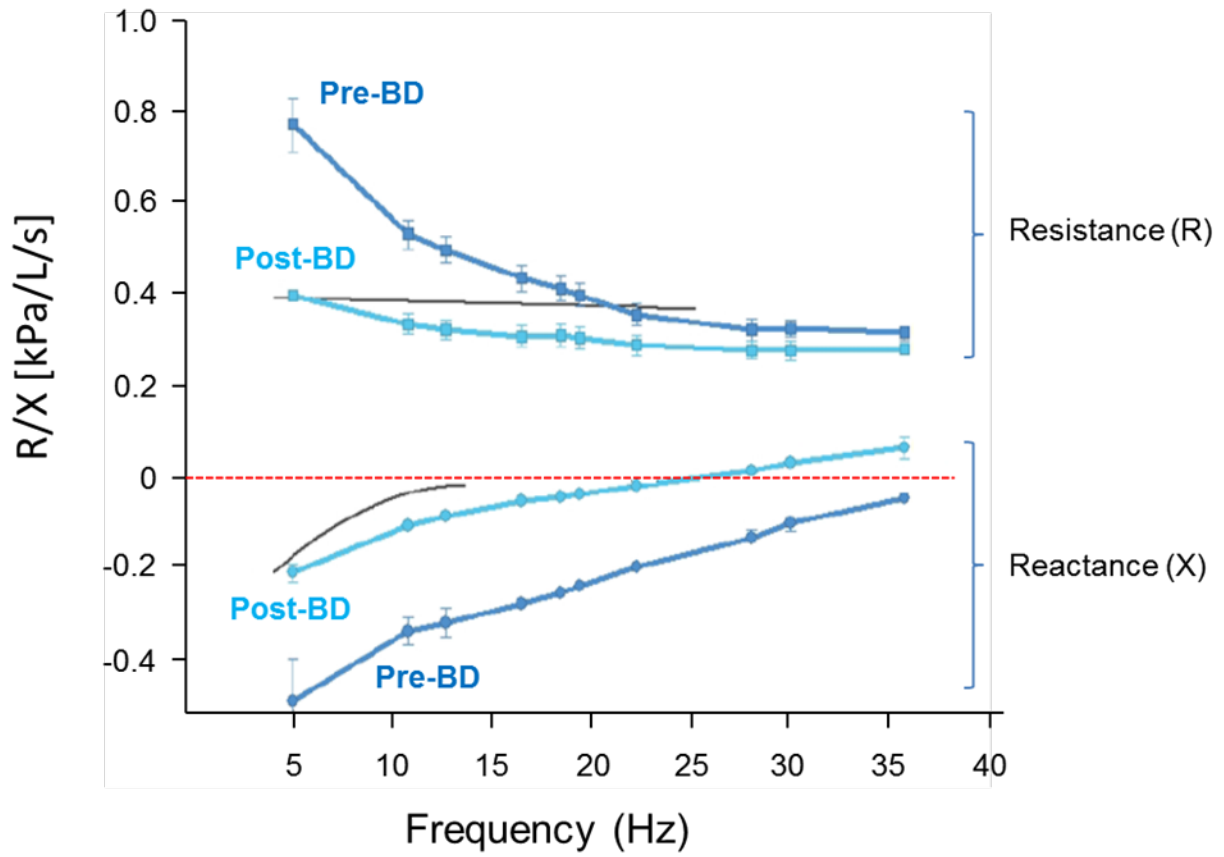


Figure 3



## **Figure Legends:**

### **Figure I**

Schematic illustration of IOS indices over oscillation frequency, including R5, R20, Fres, X5, and AX. (With Permission –Shi Y. J Allergy Clin Immunol 2012; 129: 671-8)

### **Figure II**

(A) R5 and (B) X5 as a function of height in healthy Children. Note that open circle represents reported mean (SD) of each IOS value and solid line represents a regression line.

### **Figure III**

Bronchodilator response (BDR) for IOS in response to 2 puffs of albuterol dry powder inhaler (400ug), pre and 15 minutes post inhalation using the Tremoflo airwave oscillometry (Thorasys, Montreal, Canada ). Resistance (upper) and reactance (lower) are shown as kPa/L/s plotted against frequency (5-37Hz). The mean and SD over the frequency range are also shown for the three IOS tests. Percentage improvements were: R5=48%, R20=23%, R5-20=75%, 58% X5=58%, AX=79%.