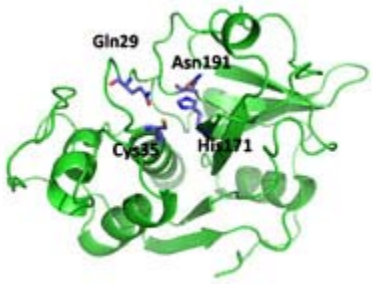
Mite Allergenicity - Exciting News



Der f 1 crystal structure

Two recent papers provide fascinating insights into intrinsic properties of mite allergens that contribute to allergenicity. In a *Nature* paper in January, Trompette and colleagues at the University of Cincinnati reported that Der p 2 has functional homology to MD-2 (a lipid binding component of Toll-like receptor 4). This allows access of Der p 2 to the innate immune system and may provide an adjuvant effect that enhances IgE responses (*Nature 457:585-8, 2009*).

In February, Dr. Anna Pomés at Indoor Biotechnologies and colleagues from the University of Virginia reported the definitive, high resolution structures of the Group 1 mite allergens, Der p 1 and Der f 1, in the 50th anniversary edition of the *Journal of Molecular Biology*. Analysis of these structures (PDB codes 3F5V and 3D6S, respectively) identified conserved surface residues that are potential IgE epitopes (*Chruszcz et al, JMB 386, 520-30, 2009*).