Sorci G, Giovannini G, Riuzzi F, Bonifazi P, Zelante T, Zagarella S, Bistoni F, Donato R and Romani L. (2011). The danger signal S100B integrates pathogen- and danger-sensing pathways to restrain inflammation. *Plos Pathogen*. 7:e1001315.

Inflammation results from recognition of invading microorganisms through pathogen–associated molecular patterns (PAMPs) and from reaction to tissue damage–associated molecular patterns (DAMPs). Despite the identification of specific signaling pathways negatively regulating responses to PAMPs or DAMPs, the unexpected convergence of molecular pathways responsible for recognition of either one raised the question of whether and how the host discriminates between the two distinct molecular patterns. Here we reveal a previously unknown mechanism by which the danger molecule S100B integrates pathogen– and danger–sensing pathways to restrain inflammation in Aspergillus fumigatus infection. By disclosing protective mechanisms that ensure prompt control of the pathogen and inflammation, our results may help to explain why humans inhale hundreds of Aspergillus conidia without adverse consequences.