

## SUPPLEMENTARY MATERIAL

**Supl Table 4** | The table presents on the left-hand side the associations between insect reactivity and the co-recognition of molecules, including both species-specific and pan-allergenic compounds from other invertebrates, indicated as crude Odds Ratios (ORc) with their respective significances.

On the right-hand side, the adjusted Odds Ratios (OR<sub>adj</sub>) are provided after adjustment for age and sex through multiple logistic regression analysis. The missing data of OR<sub>adj</sub> indicates the lack of statistical significance.

<i>Acheta domesticus</i>						
	ORc	95%CI	P-value	OR <sub>adj</sub>	95%CI	P-value
<b>Arachnida</b>	0,540	(0,4-0,8)	0,001	0,328	(0,2-0,5)	0,000
<b>Mollusca</b>	5,057	(3,3-7,8)	0,000	1,810	(1,0-3,1)	0,034
<b>Crustacea</b>	5,019	(3,4-7,3)	0,000			
<b>Blattodea</b>	6,549	(4,3-9,9)	0,000	2,533	(1,3-4,9)	0,006
<b>Hymenoptera</b>	2,419	(1,6-3,6)	0,000			
 <i>Tropomyosin</i>						
AK	15,429	(8,1-29,4)	0,000	6,713	(2,8-15,9)	0,000
MLC	5,600	(3,0-10,5)	0,000	5,696	(1,4-22,5)	0,013
SCB	9,935	(3,0-33,4)	0,000			
TnC	7,234	(1,2-43,6)	0,012	7,897	(2,2-26,9)	0,001
<i>Locusta Migratoria</i>						
	ORc	95%CI	P-value	OR <sub>adj</sub>	95%CI	P-value
<b>Arachnida</b>	1,343	(0,8-2,3)	0,289			
<b>Mollusca</b>	6,867	(4,3-11,1)	0,000	2,107	(1,0-4,2)	0,036
<b>Crustacea</b>	10,632	(6,8-16,7)	0,000			
<b>Blattodea</b>	16,703	(10,4-26,8)	0,000	6,016	(3,2-11,2)	0,000
<b>Hymenoptera</b>	3,514	(2,3-5,5)	0,000	2,394	(1,3-4,2)	0,003
 <i>Tropomyosin</i>						
AK	41,524	(20,7-83,5)	0,000	7,001	(2,9-17,0)	0,001
MLC	8,717	(4,6-16,6)	0,000	10,810	(2,4-49,2)	0,002
SCB	12,344	(3,8-39,7)	0,000			
TnC	12,727	(2,1-77,1)	0,000			
<i>Tenebrio molitor</i>						
	ORc	95%CI	P-value	OR <sub>adj</sub>	95%CI	P-value
<b>Arachnida</b>	0,781	(0,5-1,2)	0,231	0,430	(0,3-0,7)	0,000
<b>Mollusca</b>	5,718	(3,7-8,9)	0,000	1,879	(1,0-3,4)	0,035
<b>Crustacea</b>	6,392	(4,3-9,4)	0,000			
<b>Blattodea</b>	13,575	(8,8-20,9)	0,000	6,249	(3,6-10,7)	0,000
<b>Hymenoptera</b>	2,218	(1,5-3,3)	0,000			
 <i>Tropomyosin</i>						
AK	51,000	(21,2-122,5)	0,000	12,308	(4,5-33,5)	0,000
MLC	6,593	(3,5-12,3)	0,000			
SCB	7,295	(2,3-23,3)	0,000			
TnC	7,639	(1,3-46,1)	0,009			