**Table S2 Mean concentrations as naturally found in pollen and stimulus concentrations of fatty acids (FA).** For the final concentration, we added ten times the mean natural concentration (Concentration natural) and 13 ml of de-ionized water to 24 g of the pollen mix (10x FA) to create the stimulus for chemotactile proboscis extension response (PER) conditioning. Concentrations of fatty acids as found in pollen of 45 plant species were obtained from Manning (2006) and averaged to calculate the mean natural concentration. Capric acid was purchased from Carl Roth, Karlsruhe, Germany. All other fatty acids were purchased from Sigma-Aldrich, Taufkirchen, Germany.

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| **Fatty acid** | **Concentration natural [mg/g]** | **Concentration 10x FA [mg/g]** |
| Arachidic acid | 0.506 | 5.566 |
| Behenic acid | 0.807 | 8.877 |
| Capric acid | 0.611 | 6.721 |
| Lauric acid | 0.706 | 7.766 |
| Myristic acid | 2.793 | 30.723 |
| Palmitic acid | 9.460 | 104.06 |
| Stearic acid | 2.461 | 27.071 |