CLAIMS

1. A mammalian cell comprising an arthropod chemosensory receptor, wherein the cell is a U2OS cell.

2. The cell of any of the previous claims wherein the receptor is transiently expressed in the mammalian cell.

3. The cell of claim 2 wherein the receptor is transiently expressed using a baculovirus expression vector system.

4. The cell of any of the previous claims wherein the chemosensory receptor is an olfactory receptor.

5. The cell of any of the previous claims wherein the arthropod is an insect and the chemosensory receptor is an insect odorant receptor.

6. The cell of any of the previous claims wherein the receptor is a mosquito odorant receptor.

7. The cell of claim 6 wherein the mosquito odorant receptor comprises an odorant receptor (ORX) and a co-receptor (ORCO).

8. The cell of claim 7 wherein the mosquito odorant receptor is an *Aedes aegypti* and/or *Anopheles gambiae* odorant receptor.

9. The cell of claim 8 wherein the co-receptor (ORCO) is selected from AgamOrco and/or AaORCO and the receptor (ORX) is selected from *Aa*OR8, *Aa*OR2 or *Aa*OR11, *Agam*OR8 or *Agam*OR2.

10. The cell of any one of the previous claims wherein the cell is contained in a cell-based assay or disposed on a solid support.

11. A method of identifying an arthropod control agent, the method comprising:
(a) contacting one or more mammalian cell comprising an arthropod chemosensory receptor according to any one of the previous claims with a test compound; and

(b) measuring a receptor activity,

wherein a change in the receptor indicates that the test compound is an arthropod control agent modulator.

12. The method of claim 11 wherein modulation of the receptor activity indicates that the test compound is an arthropod control agent.