

Figure 1

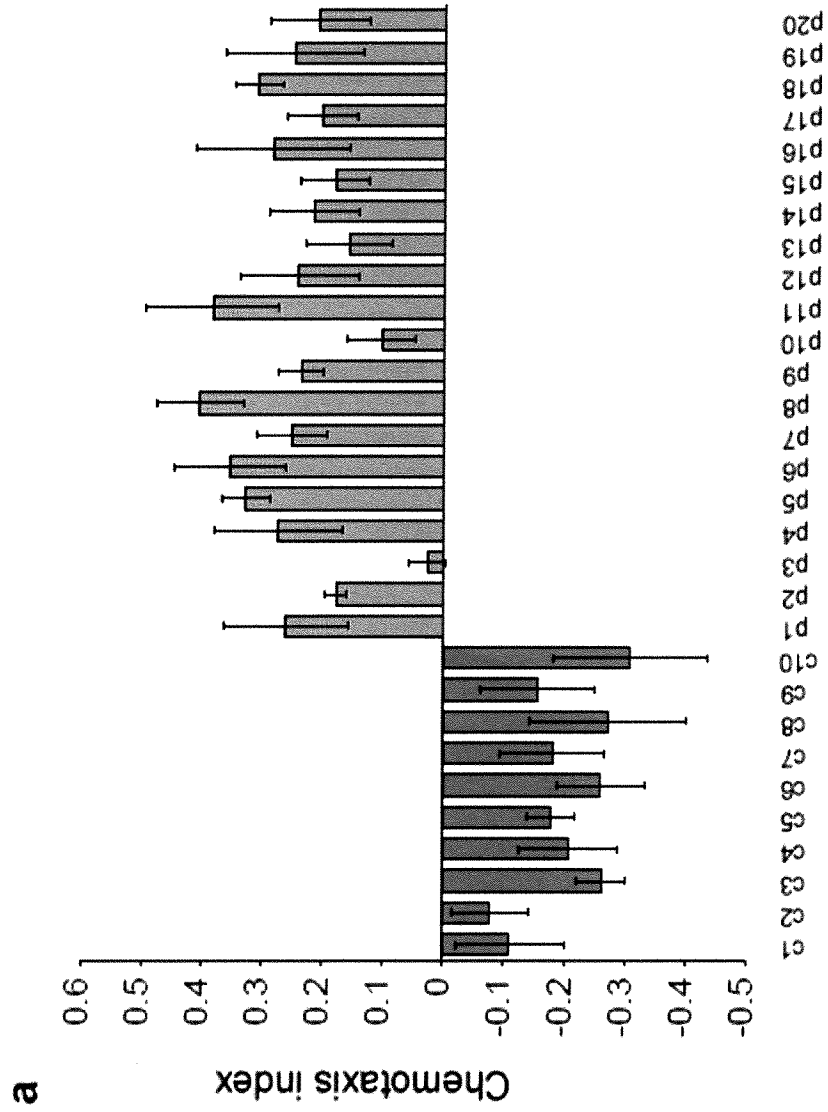


Figure 2

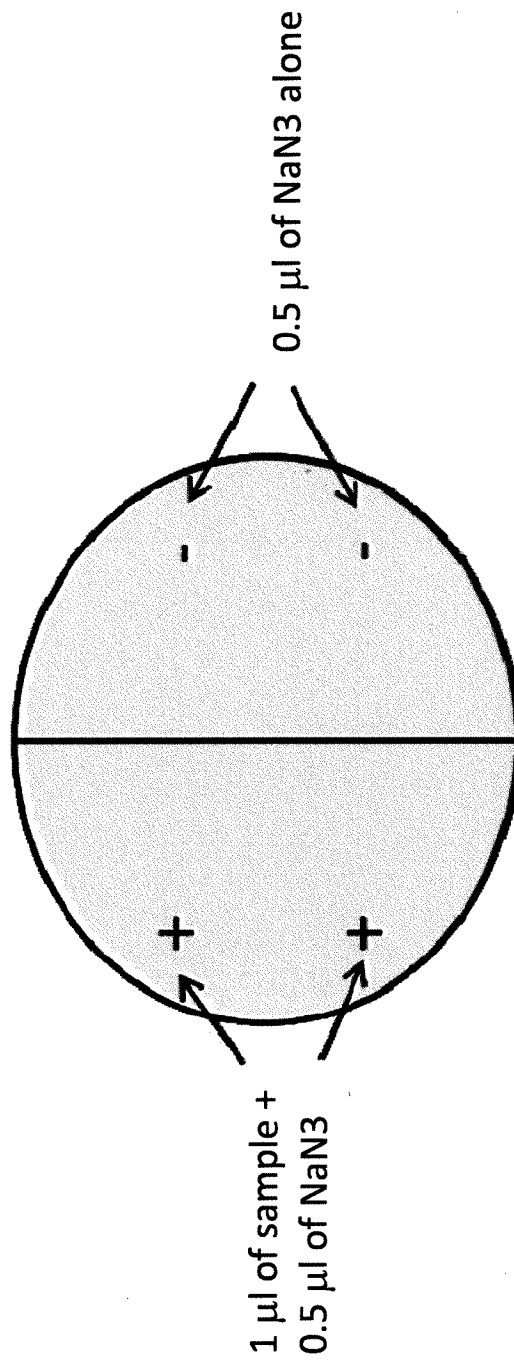


Figure 3

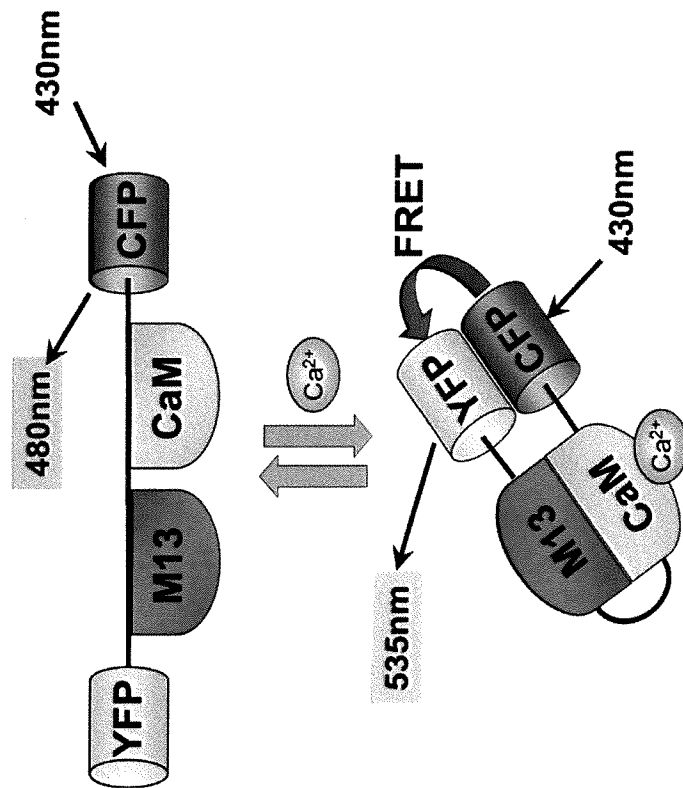


Figure 4

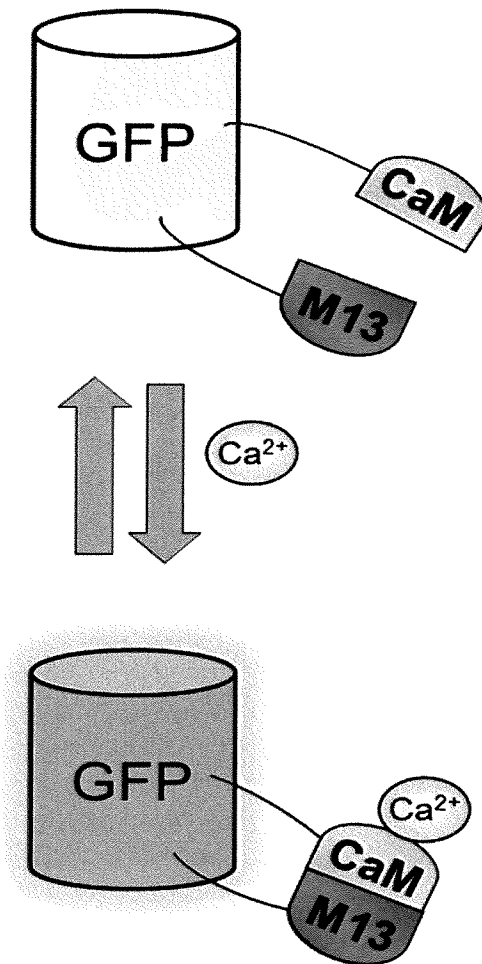


Figure 5

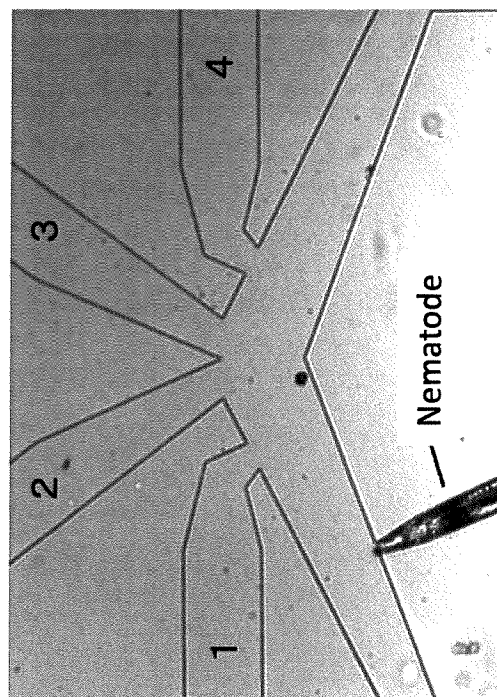


Figure 6

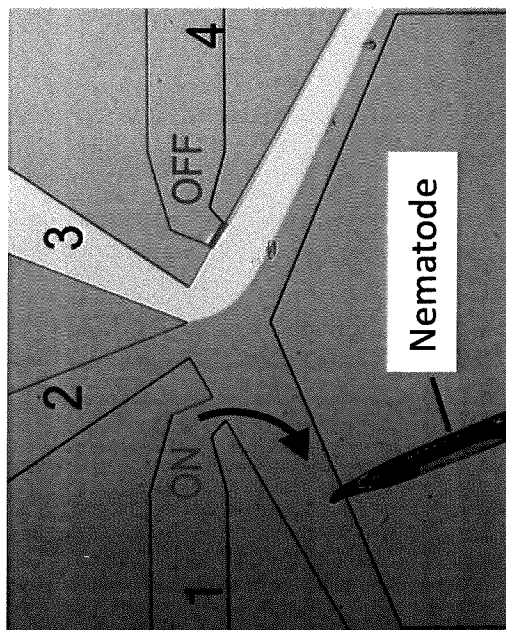
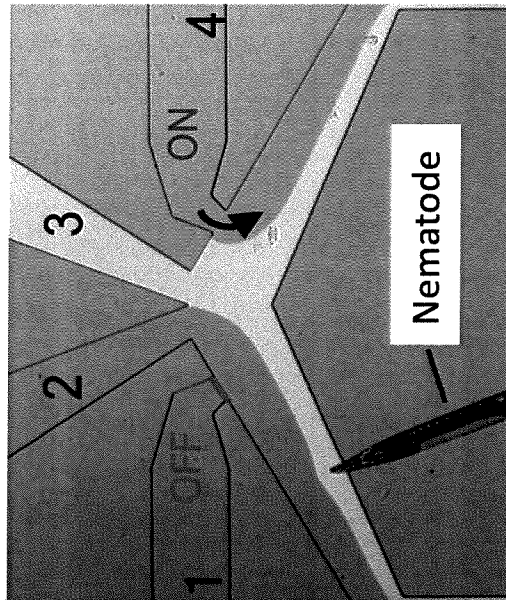


Figure 7

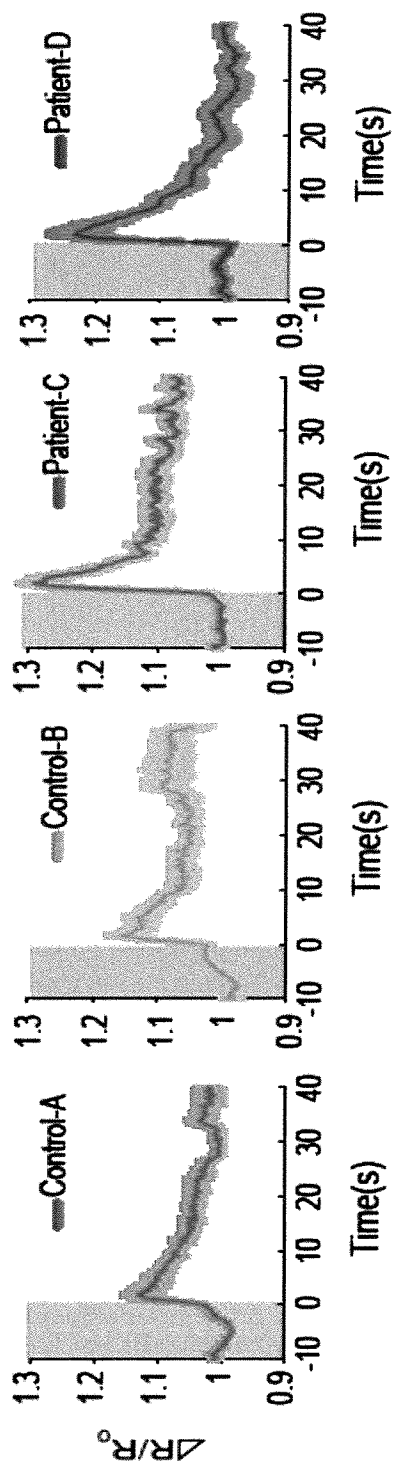


Figure 8

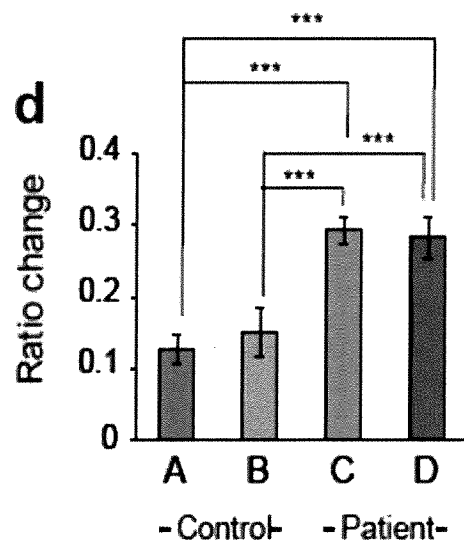


Figure 9

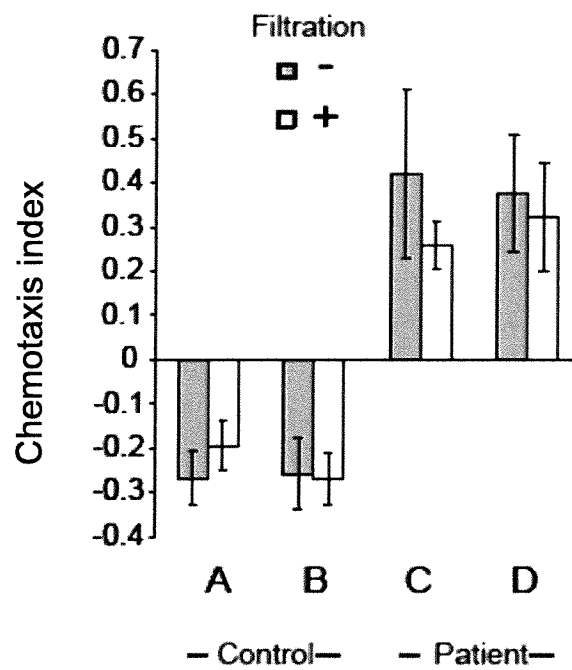


Figure 10

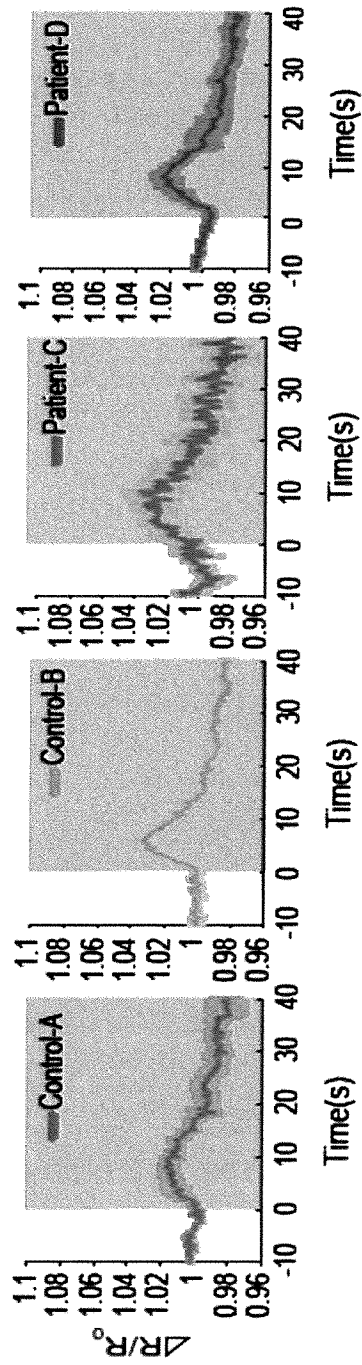


Figure 11

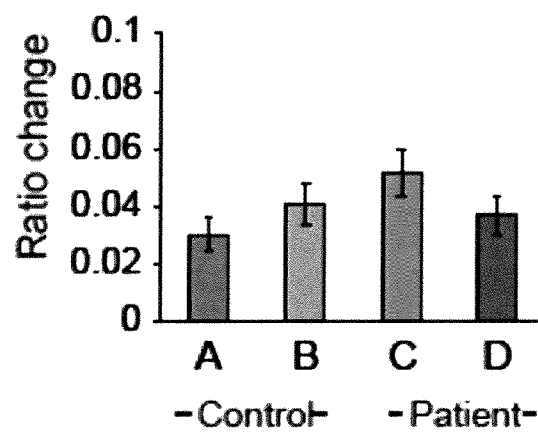
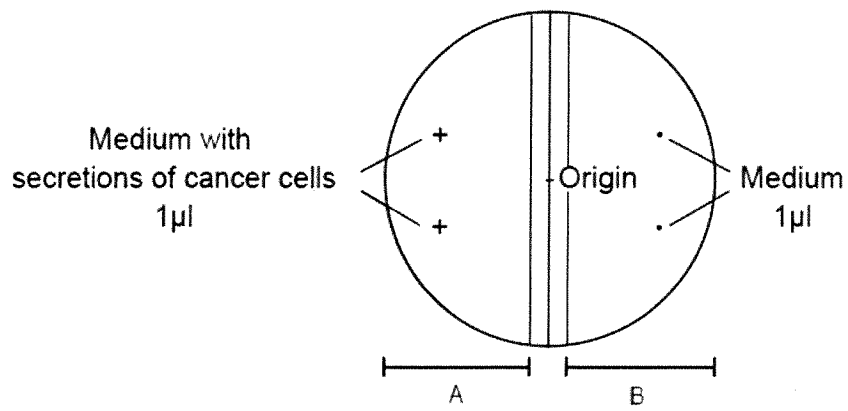


Figure 12

a



b

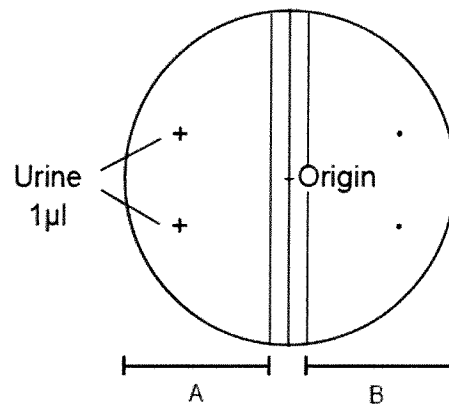


Figure 13

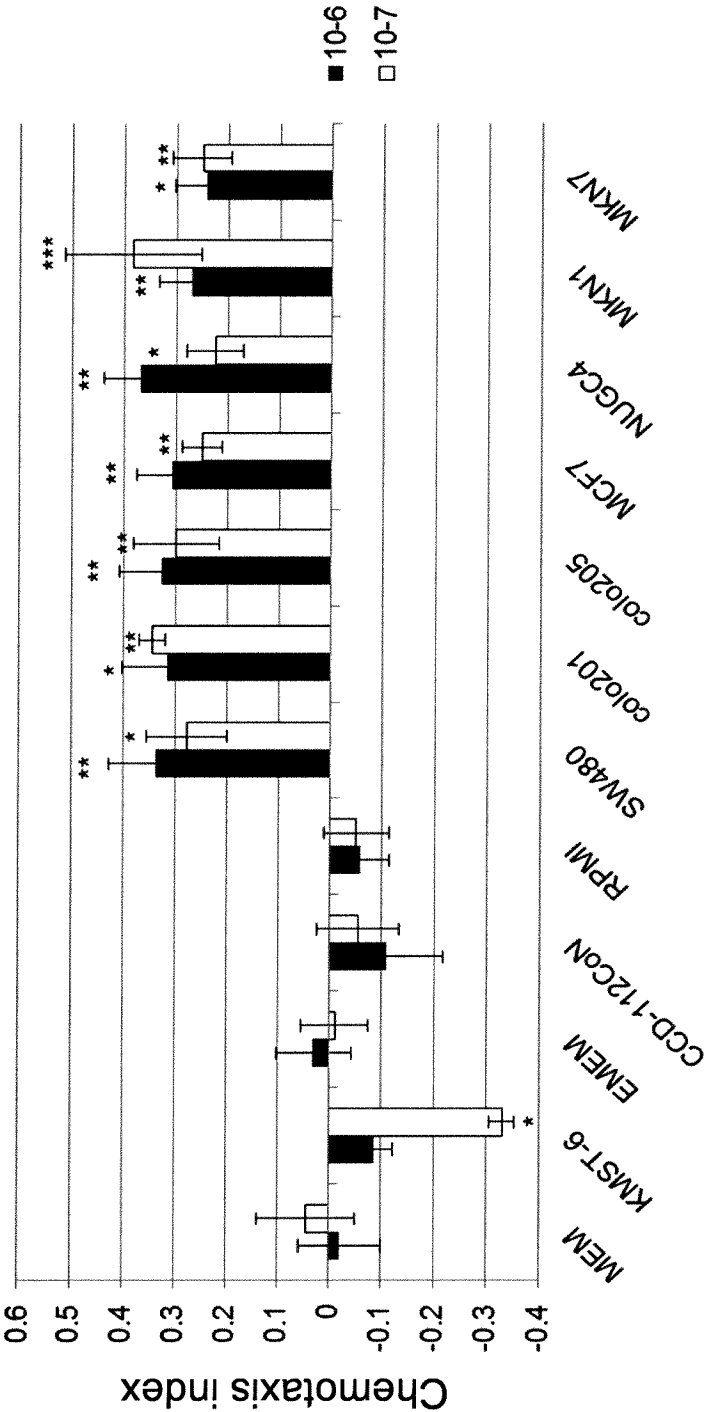


Figure 14

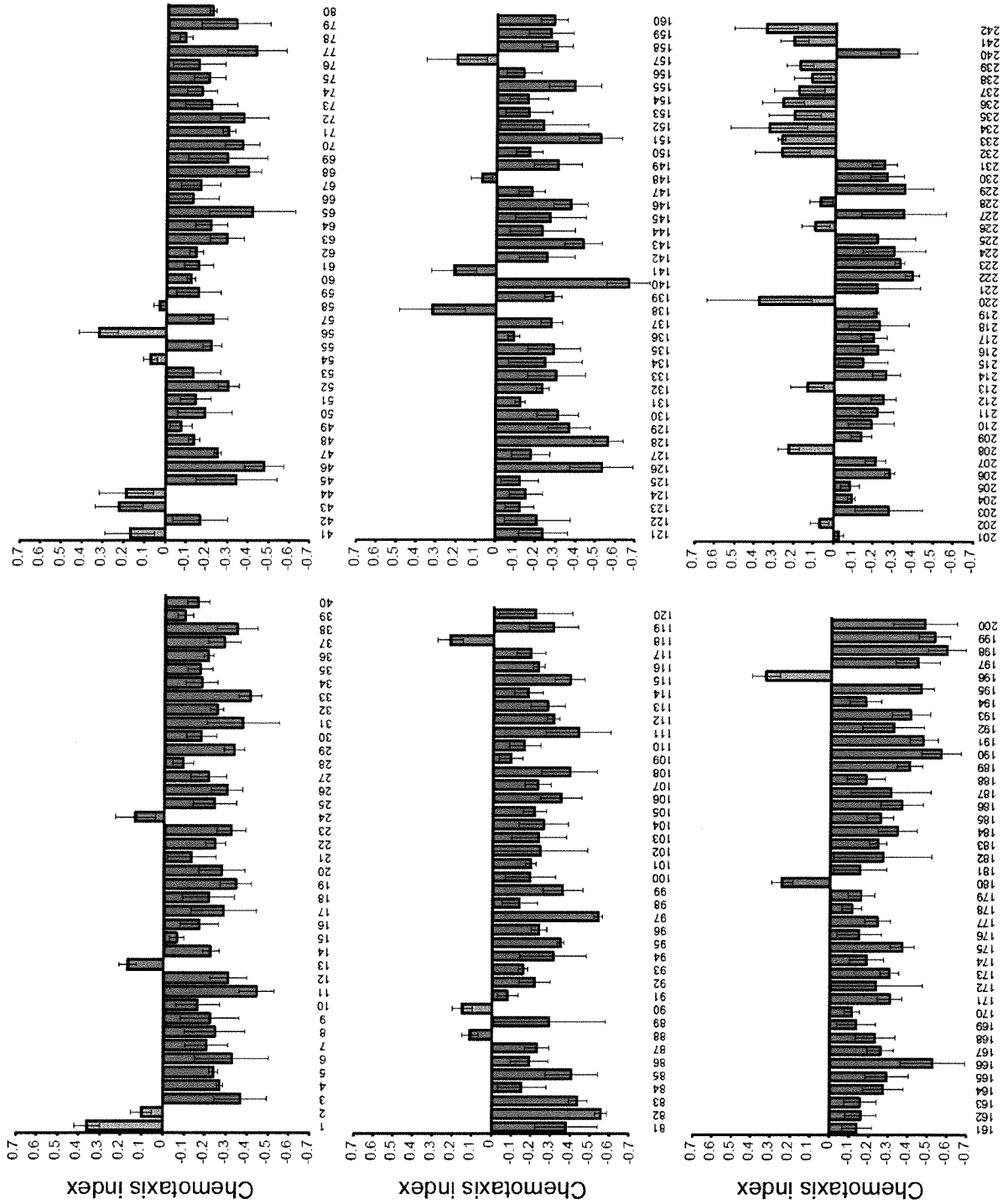


Figure 15

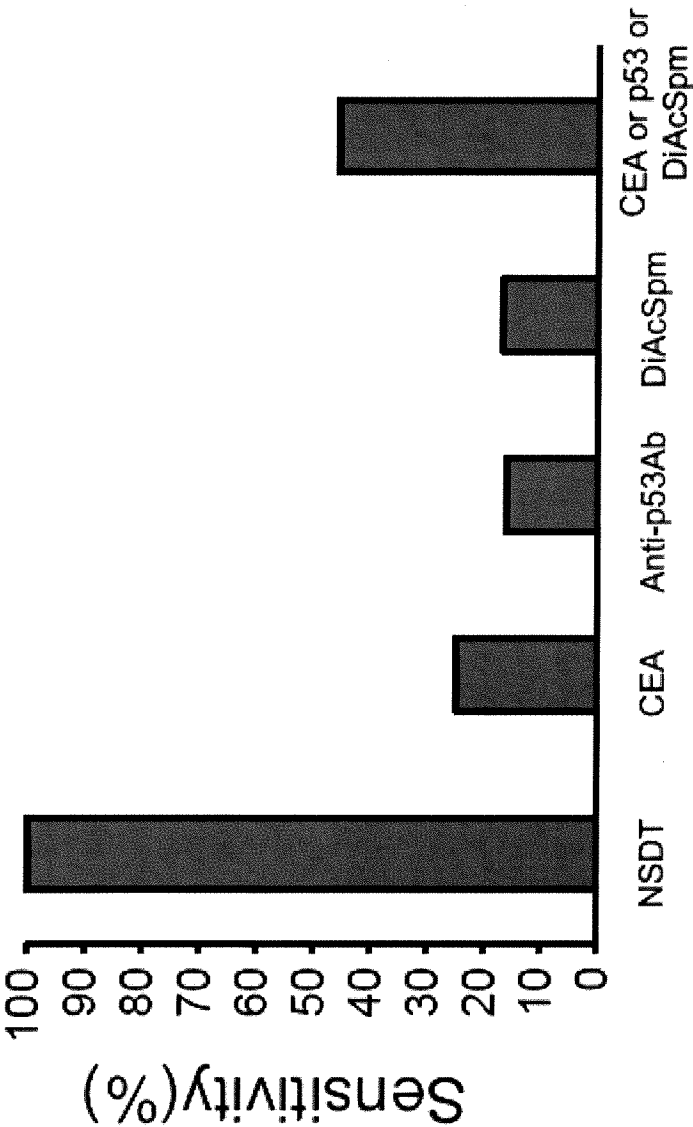


Figure 16A

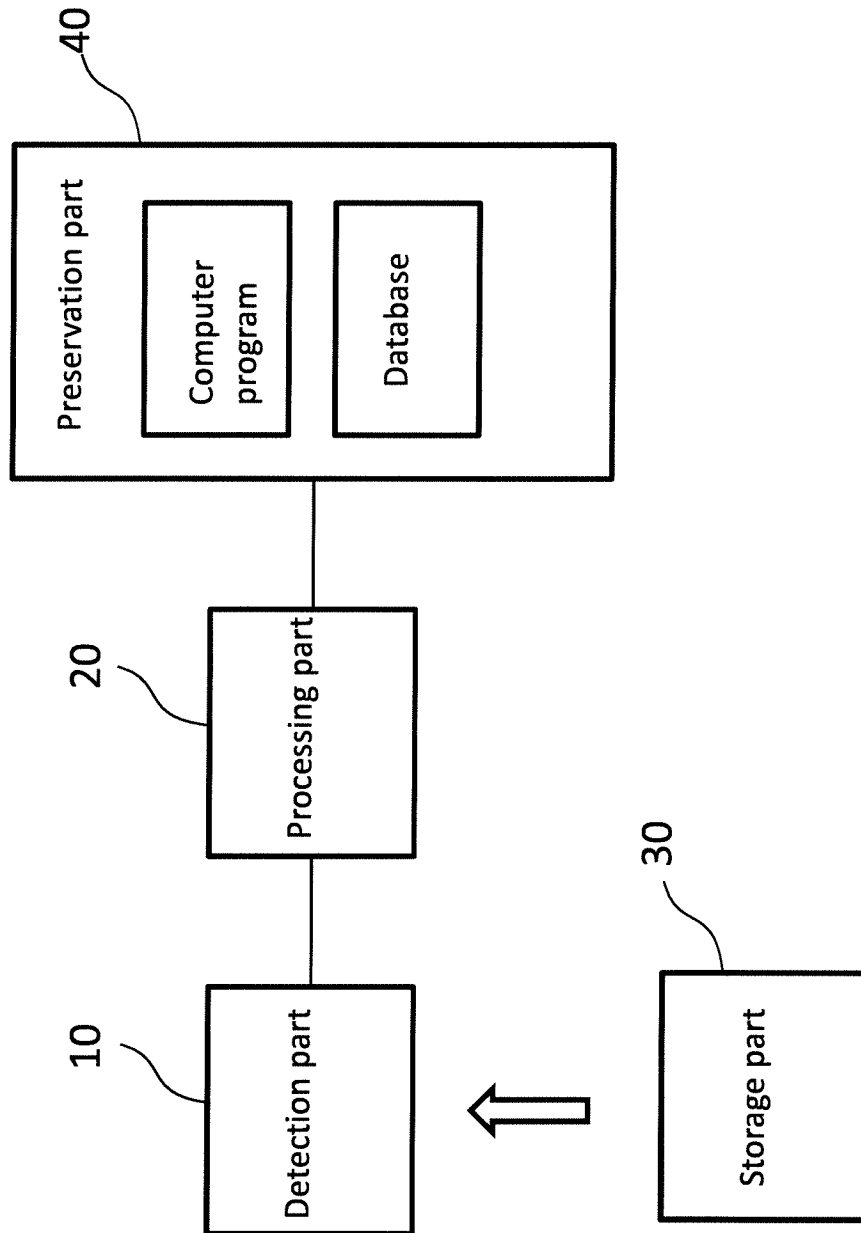


Figure 16B

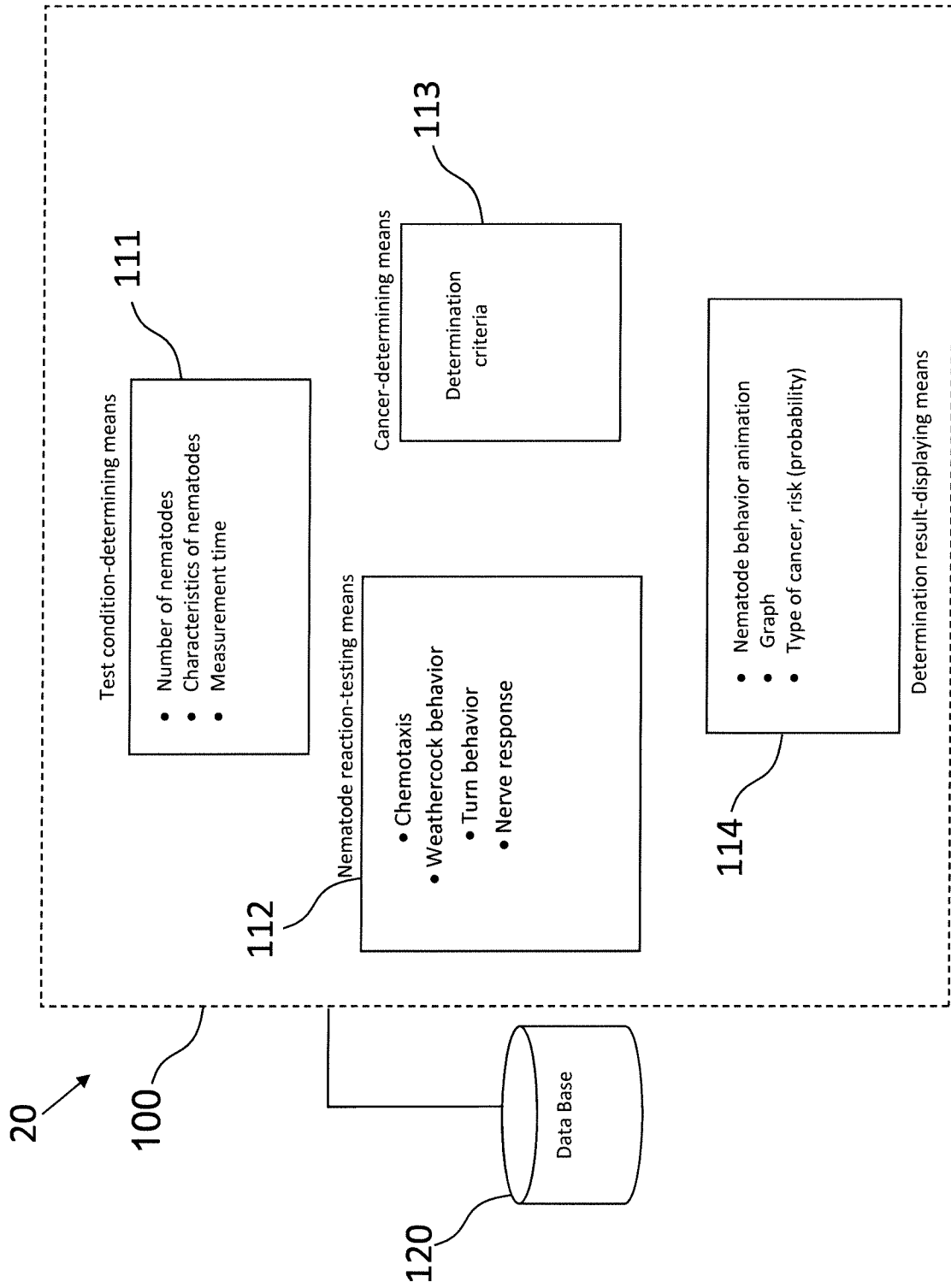


Figure 17

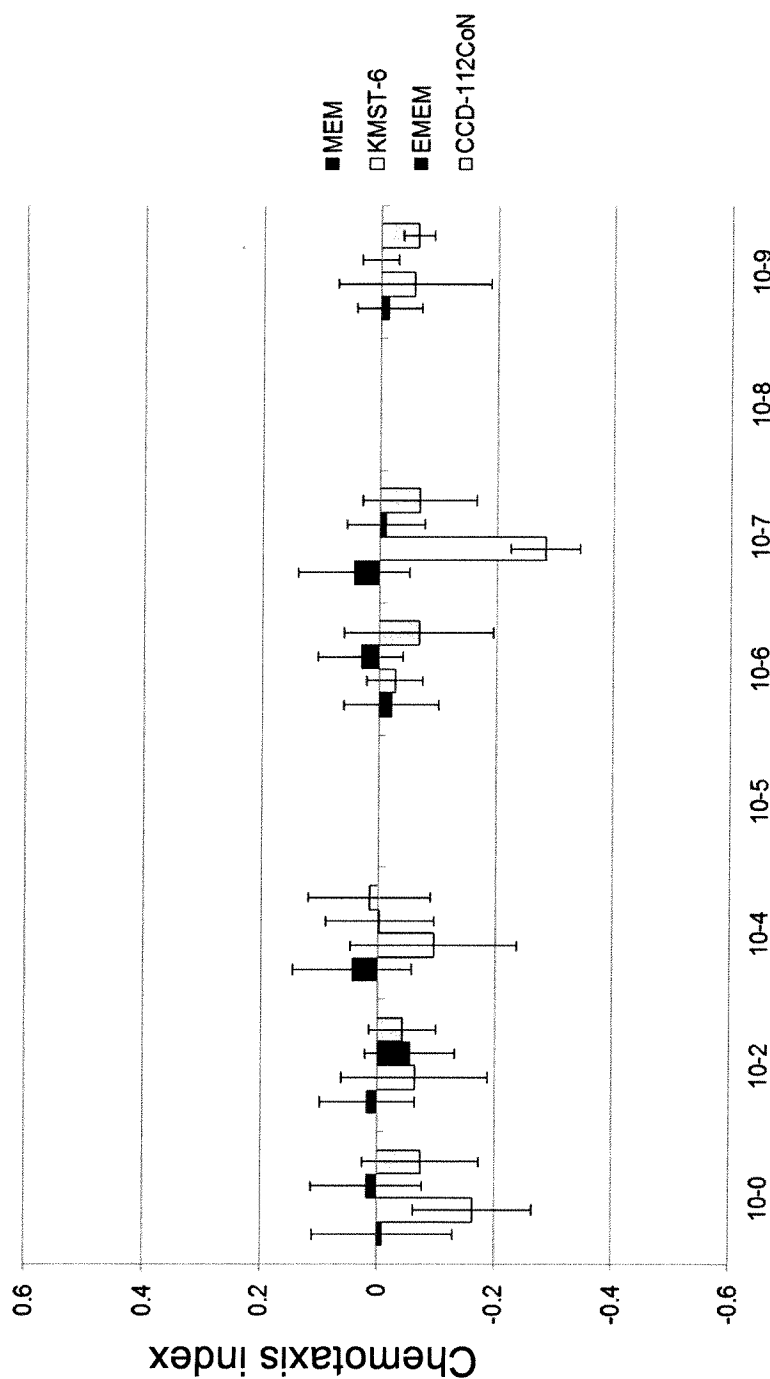


Figure 18

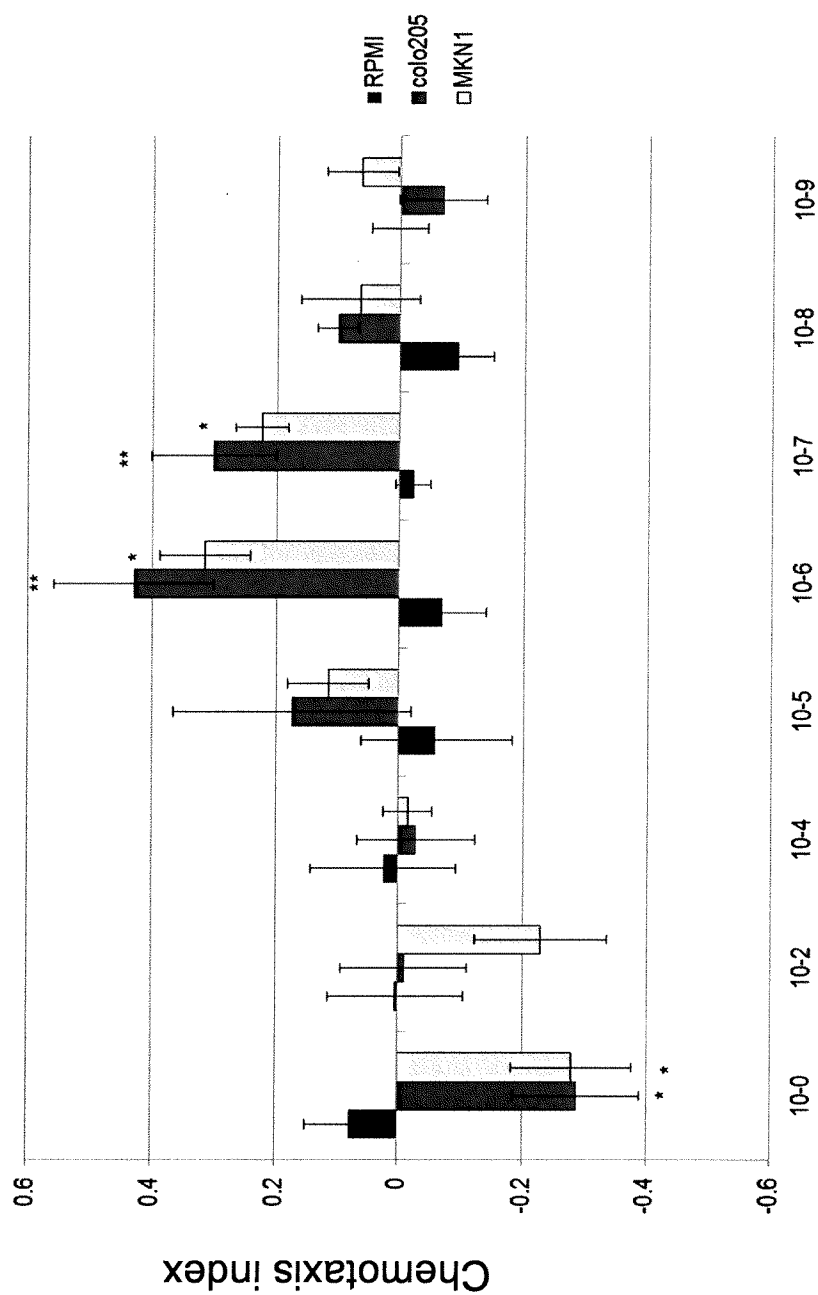


Figure 19

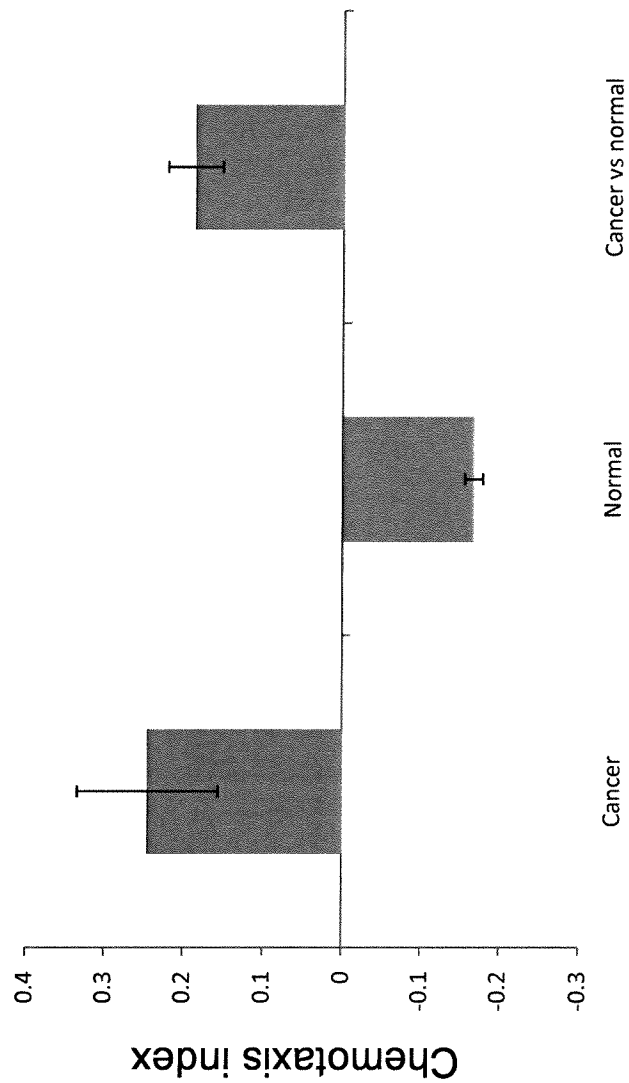


Figure 20

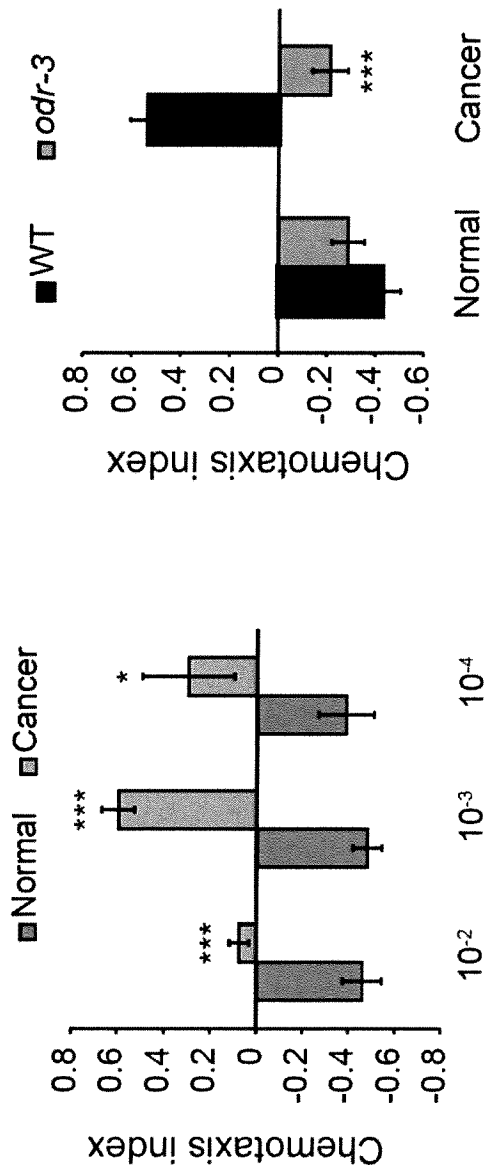


Figure 21

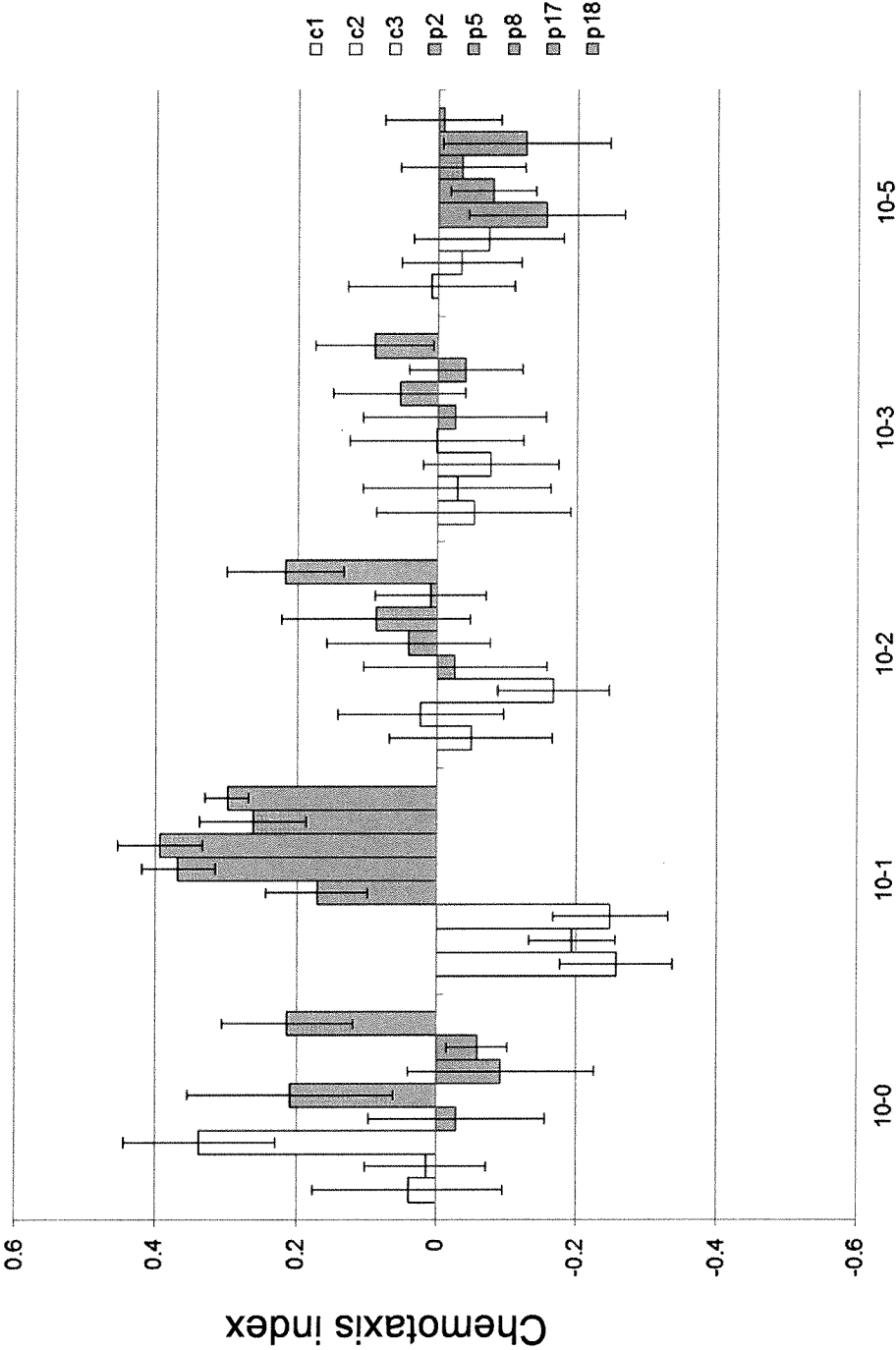
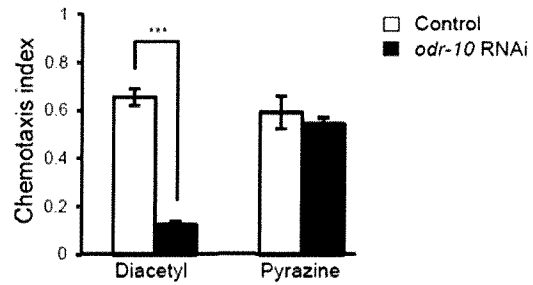


Figure 22

A



B

Odorant	The number of candidate genes
<i>Attractants</i>	
Isoamyl alcohol (Iaa)	21
Benzaldehyde (Bz)	50
Butanone (Bu)	17
Pentanedione (Pd)	39
Pyrazine (Py)	56
Trimethylthiazole (Tmt)	22
<i>Repellents</i>	
Nonanone (Nona)	4
Octanol (Oct)	10
High Iaa	1
High Bz	7
High Diacetyl (Da)	28

C

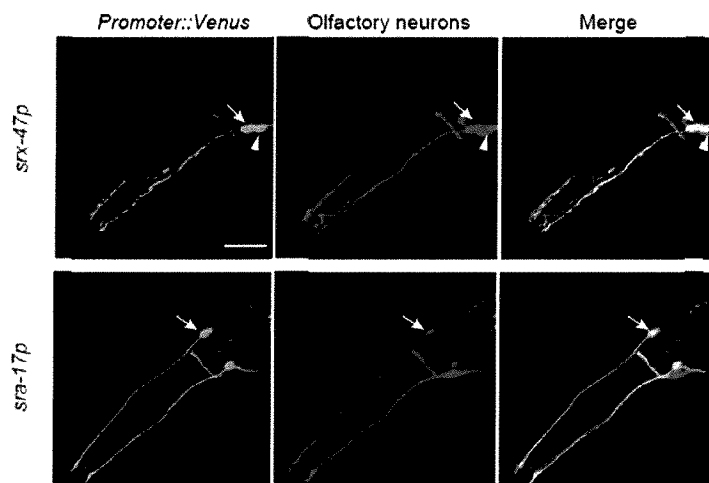


Figure 23

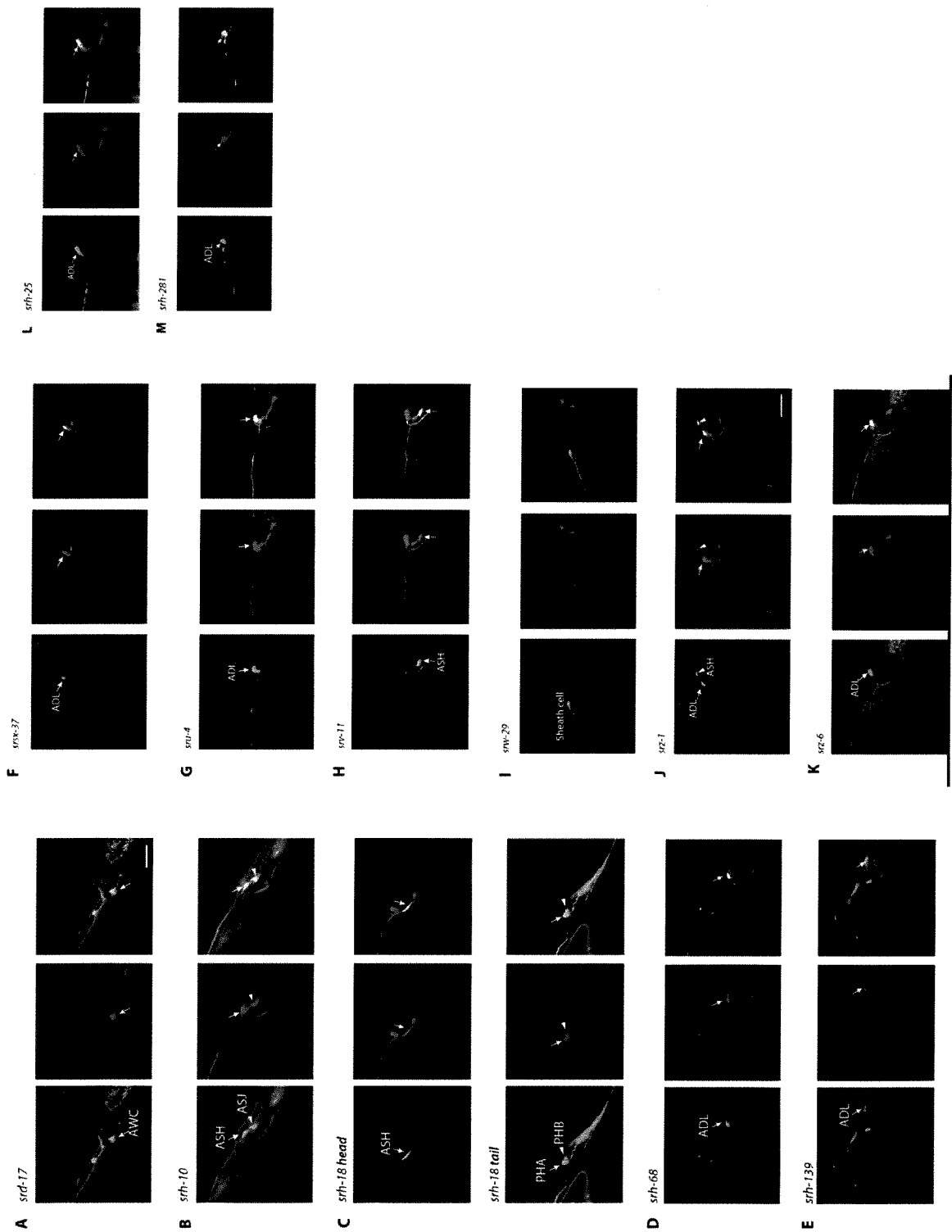


Figure 24

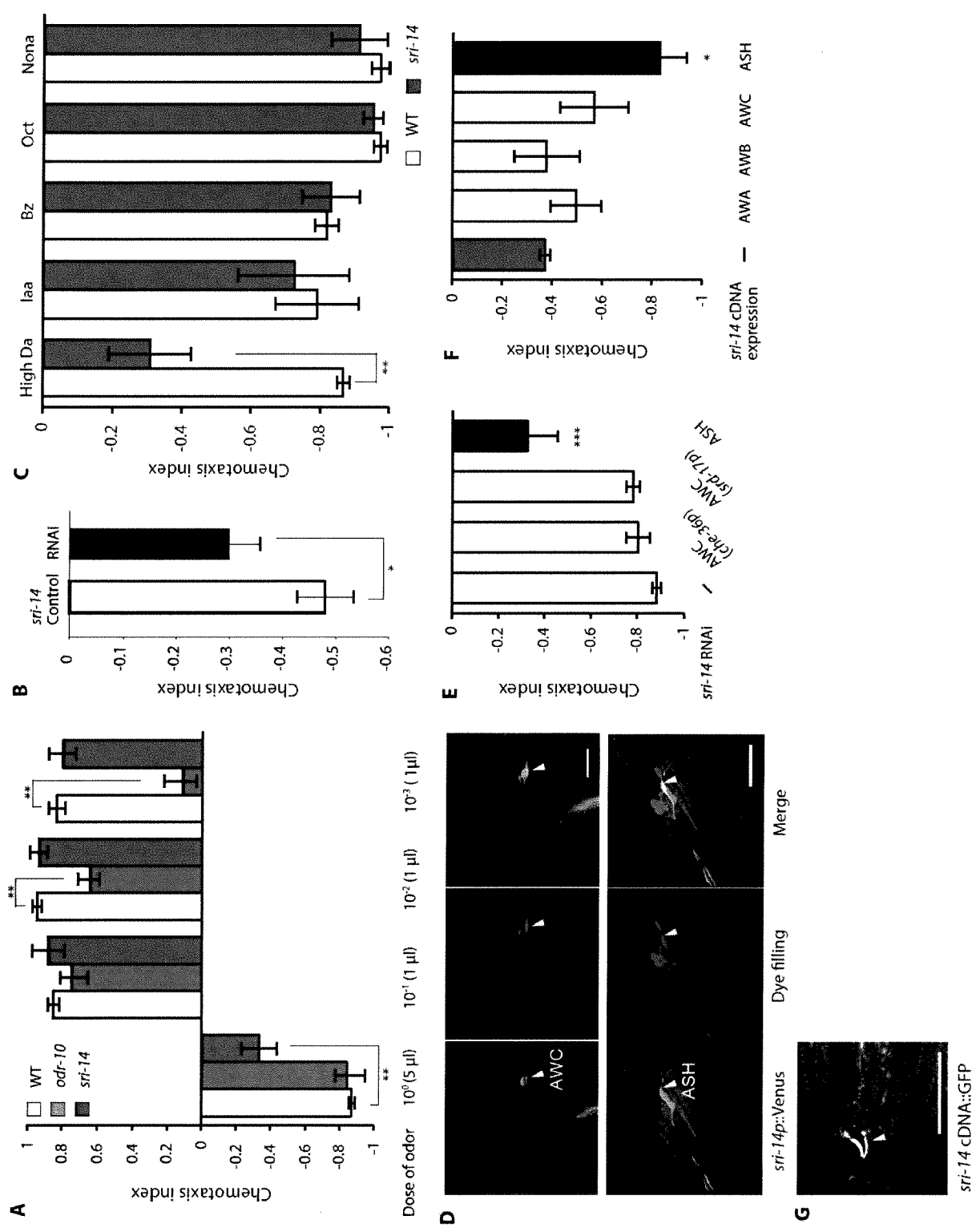


Figure 25

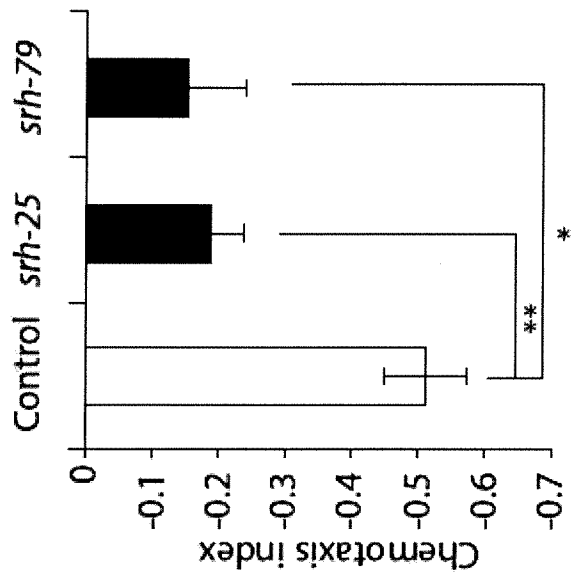
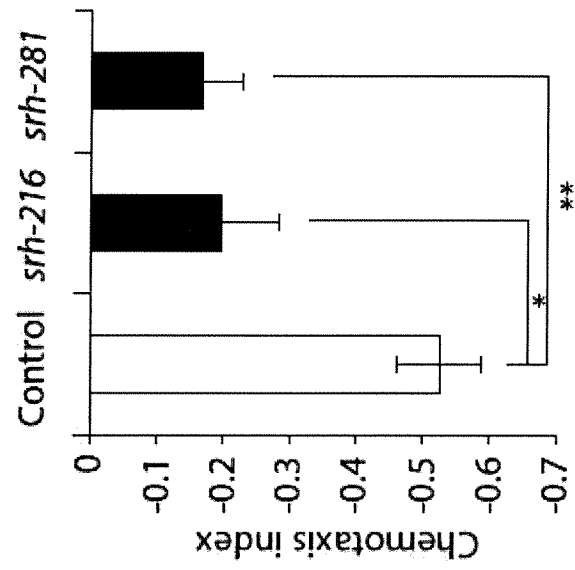


Figure 26

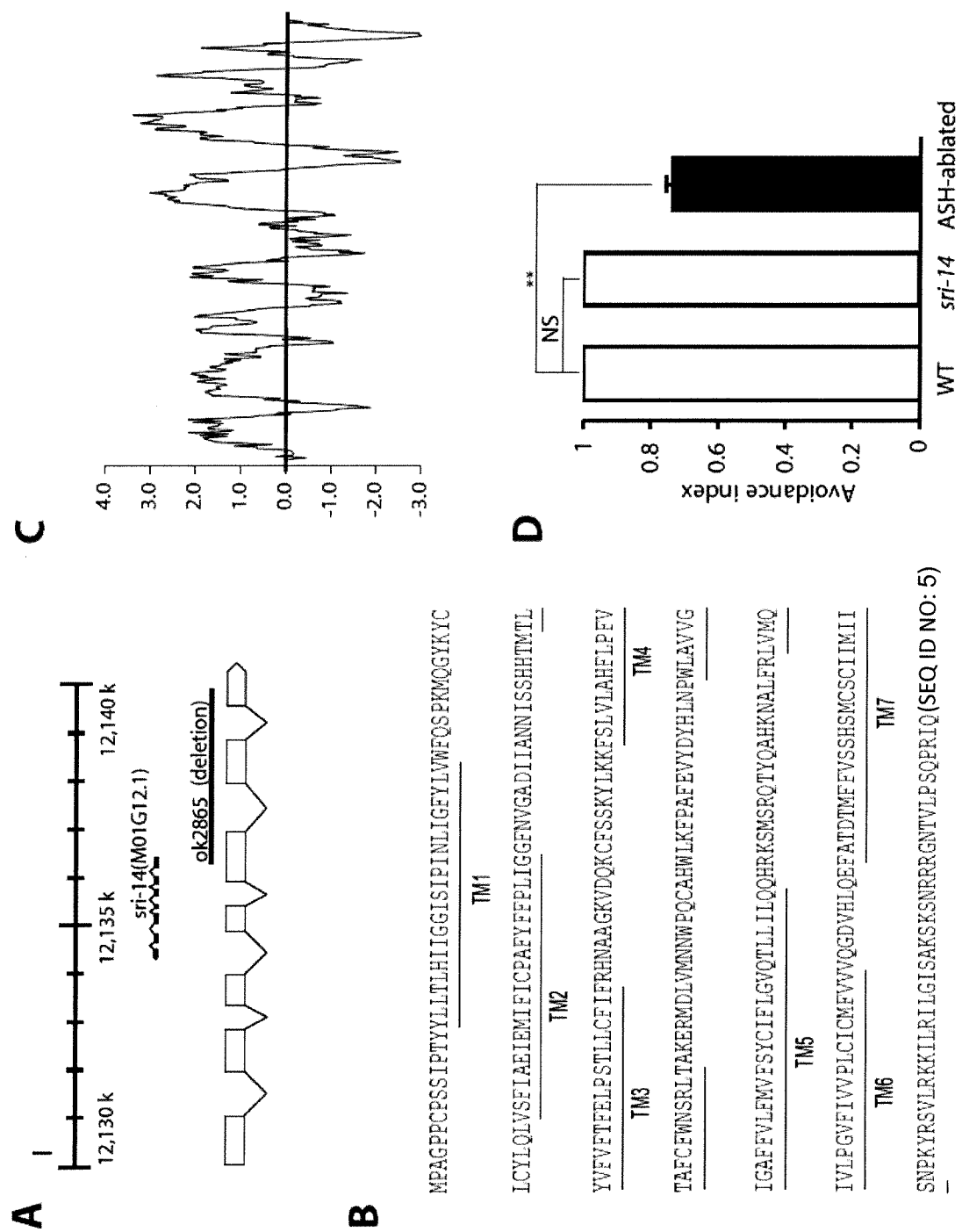


Figure 27

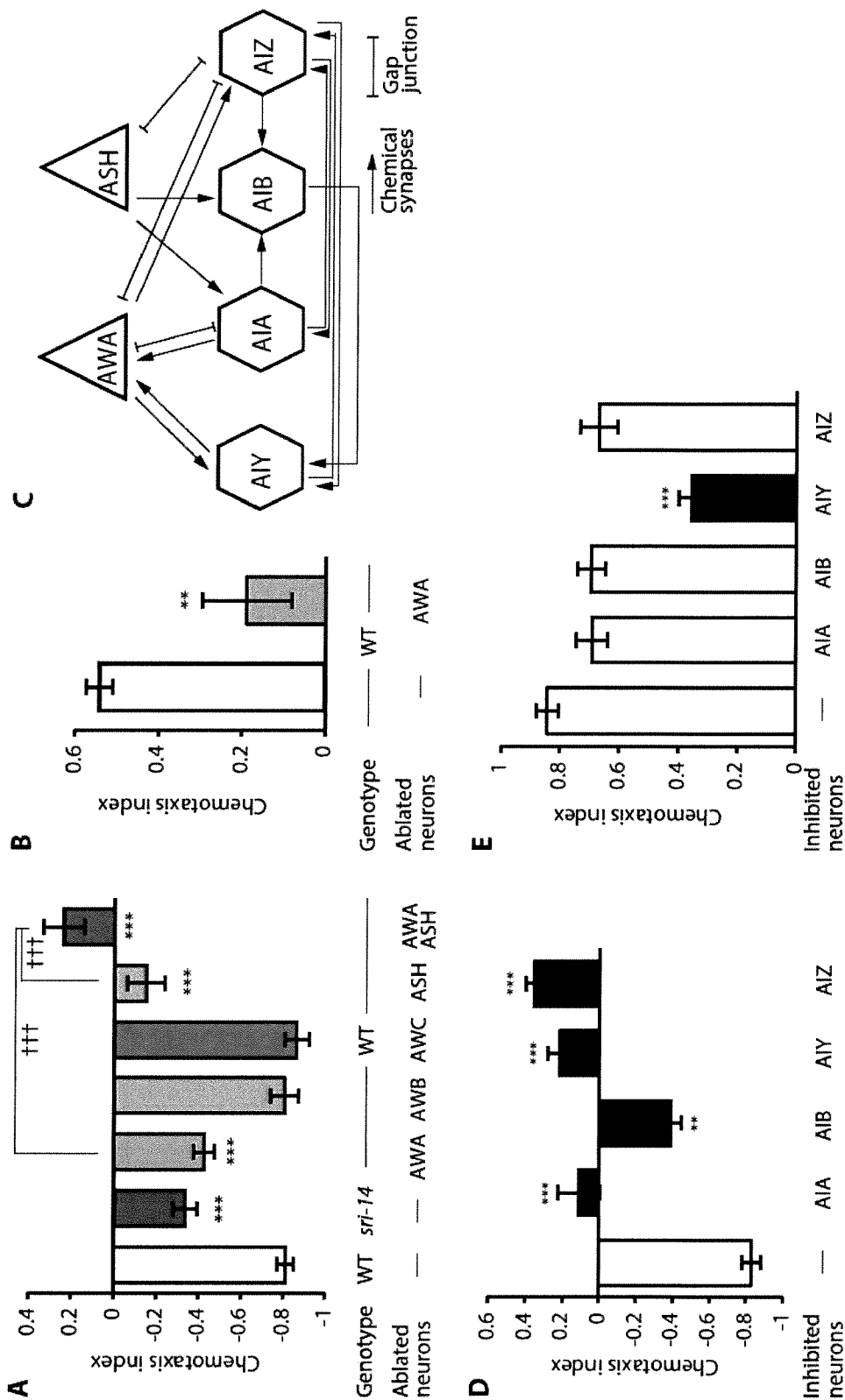


Figure 28

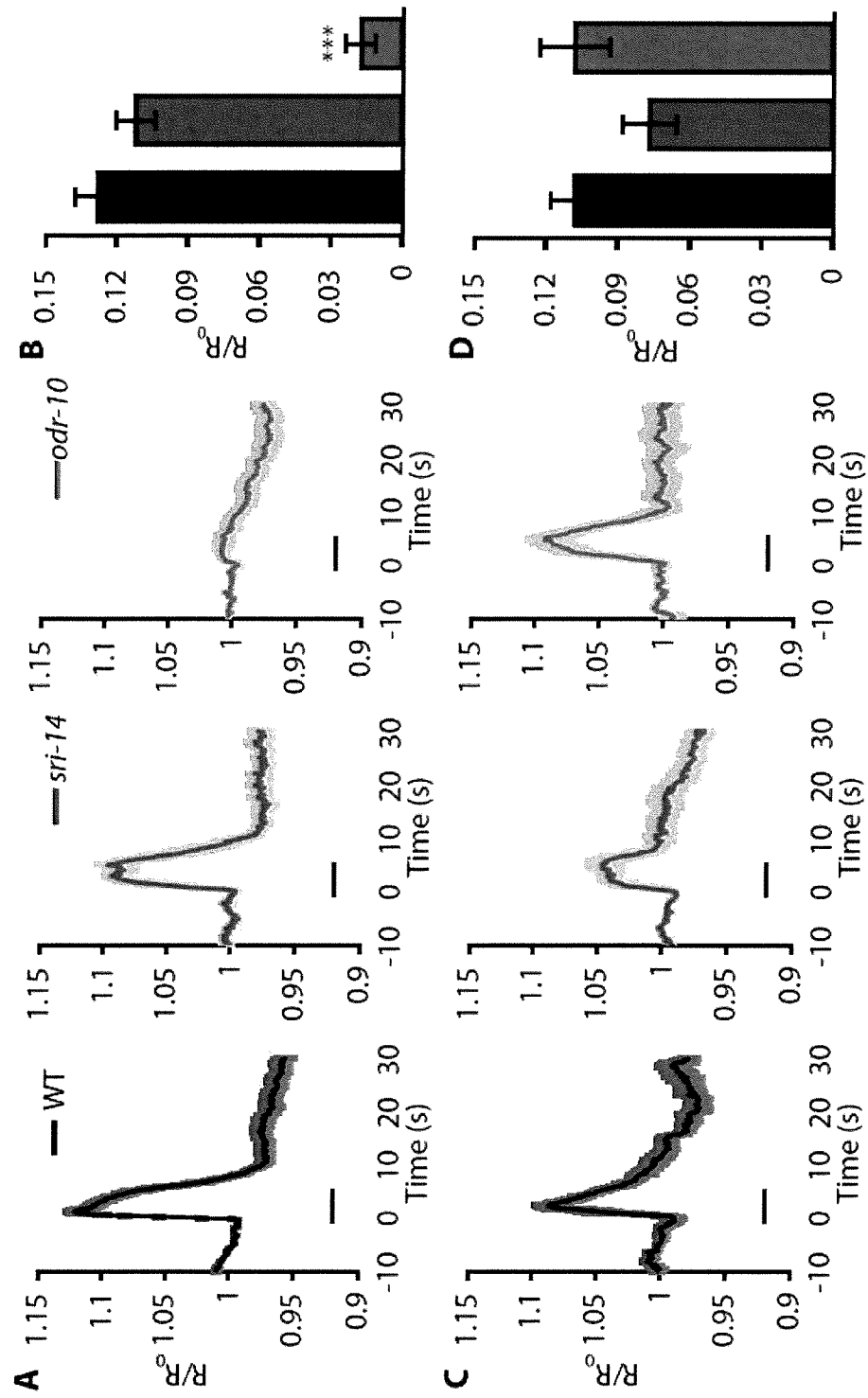


Figure 29

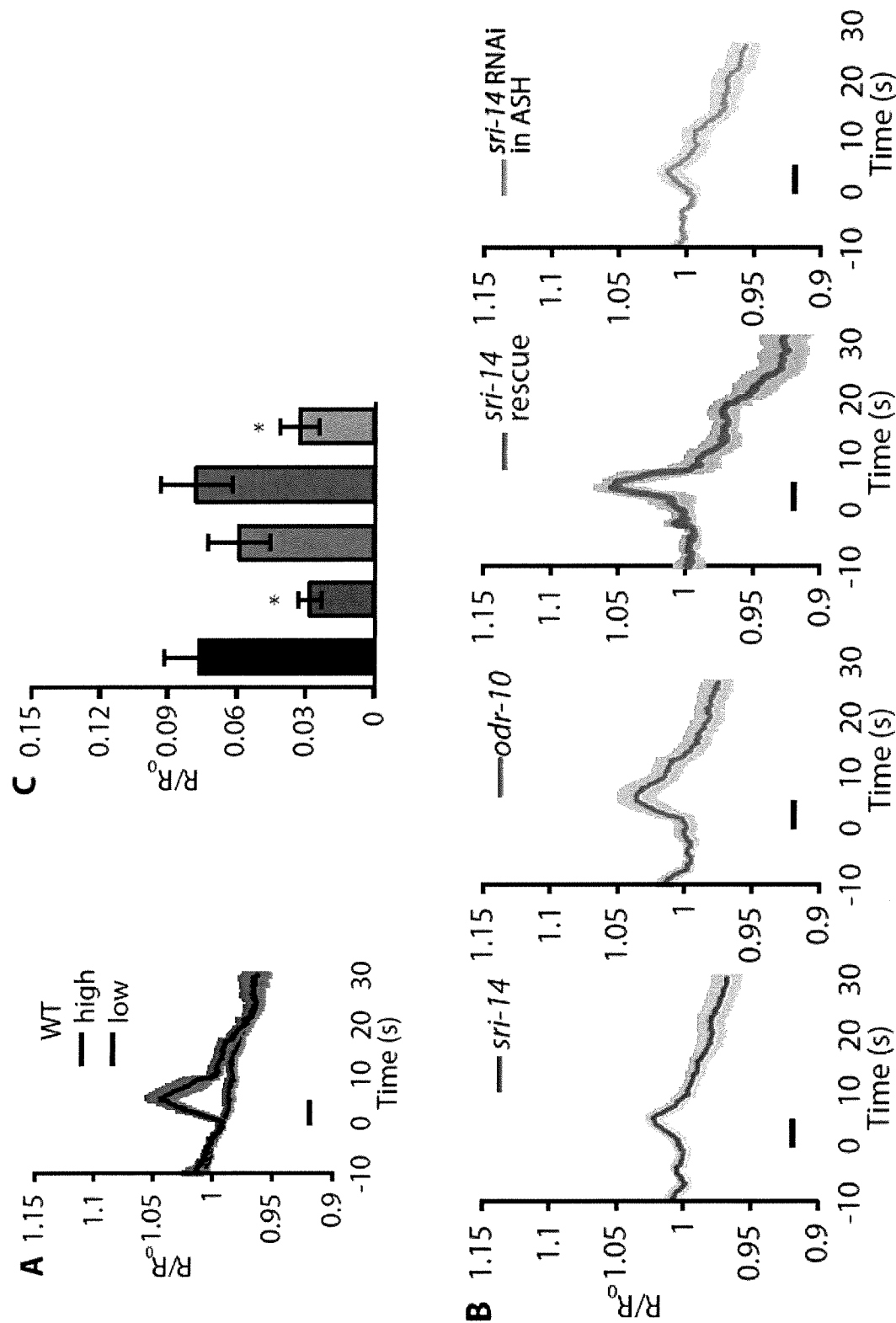


Figure 30

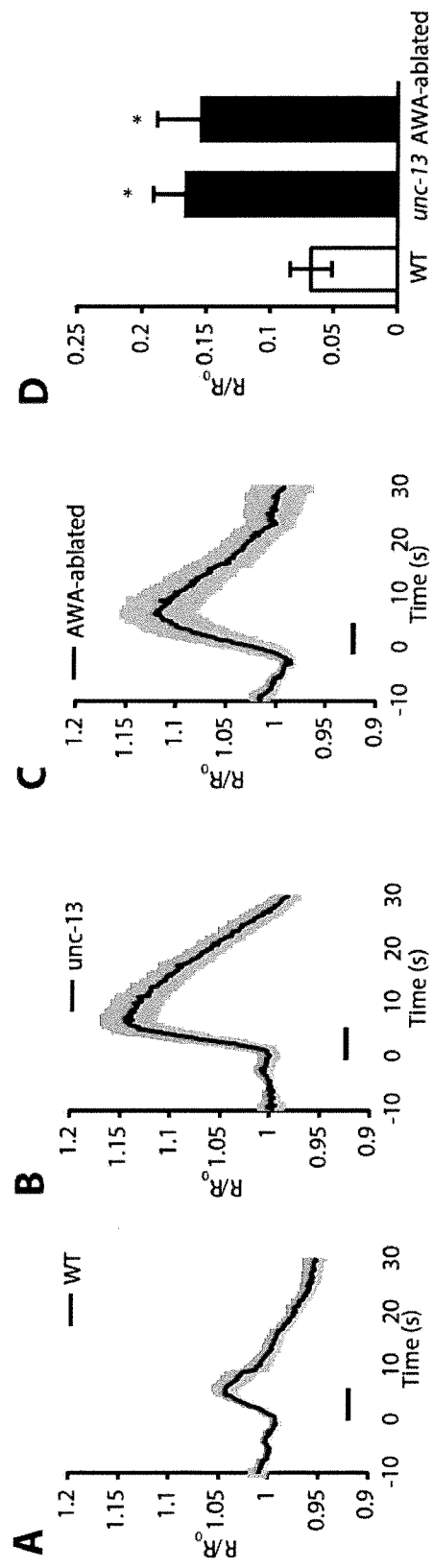


Figure 31

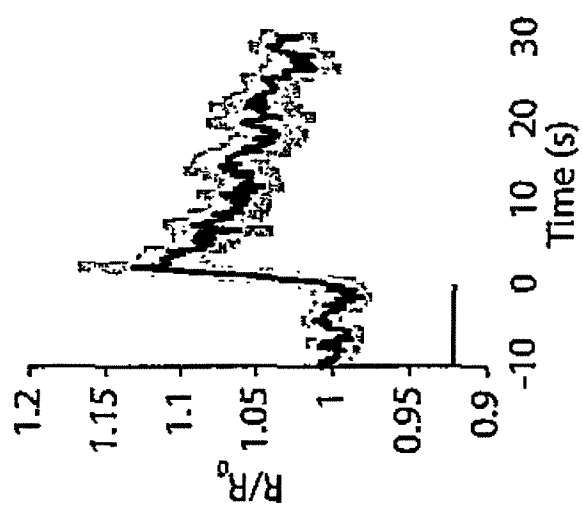


Figure 32

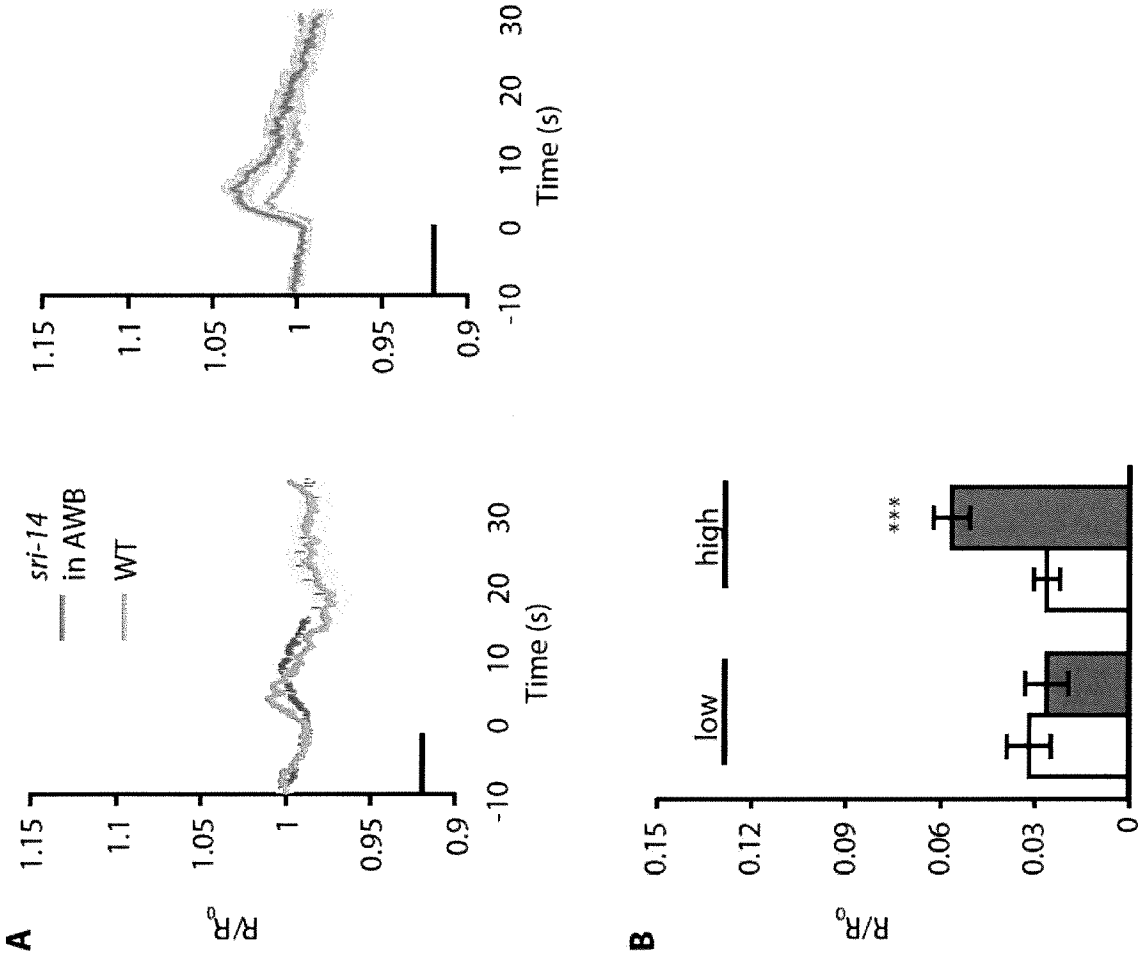


Figure 33

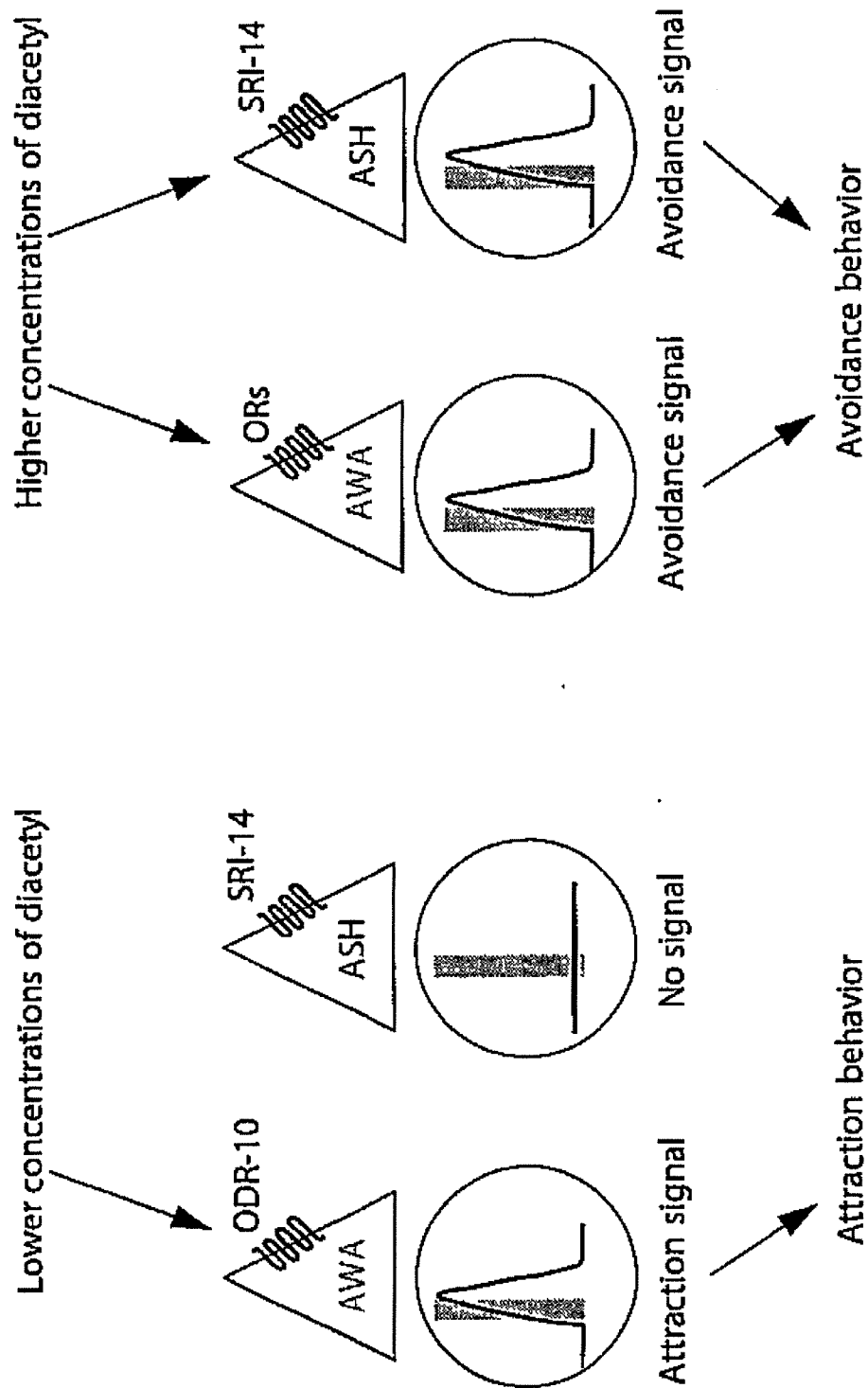


Figure 34

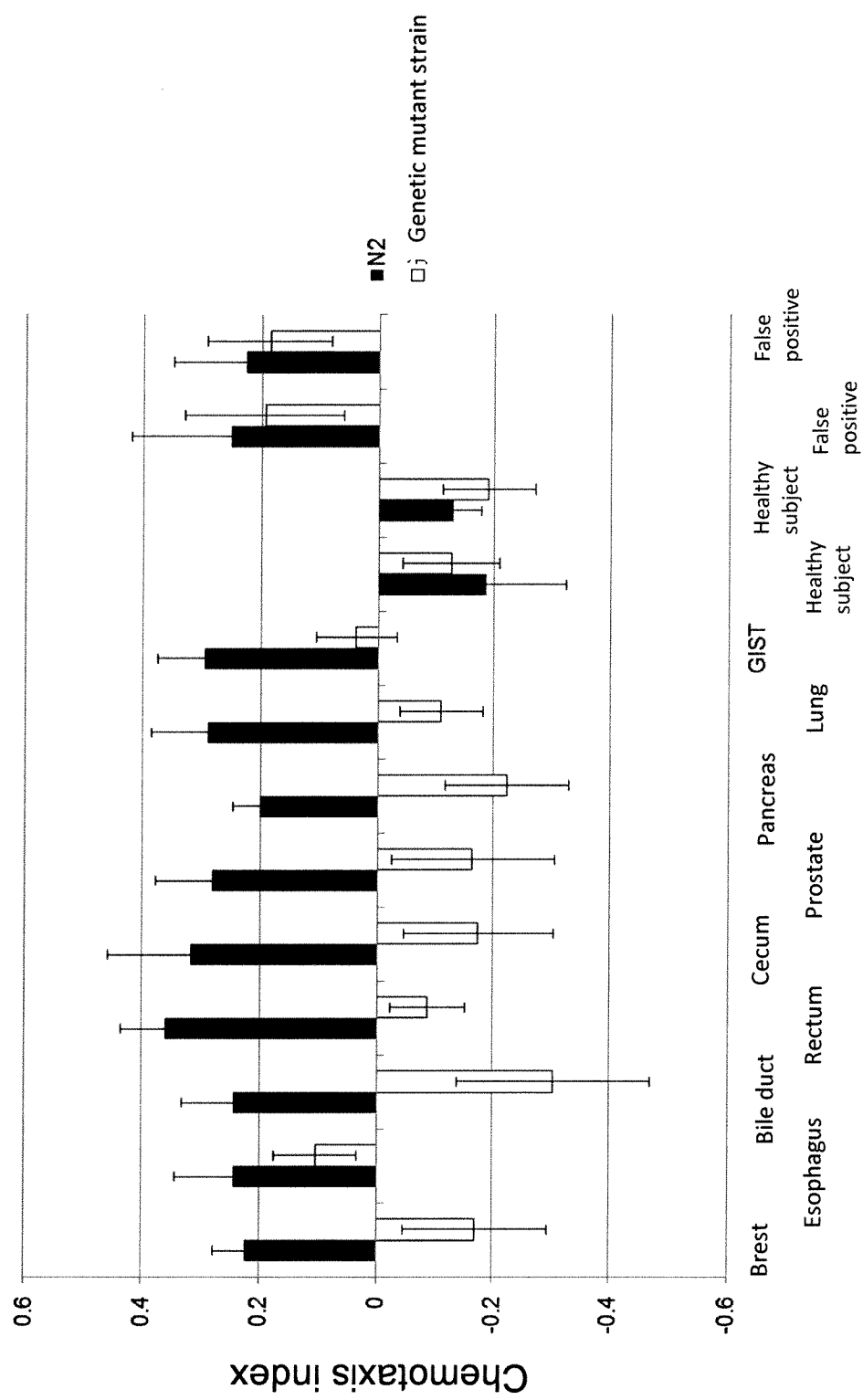


Figure 35

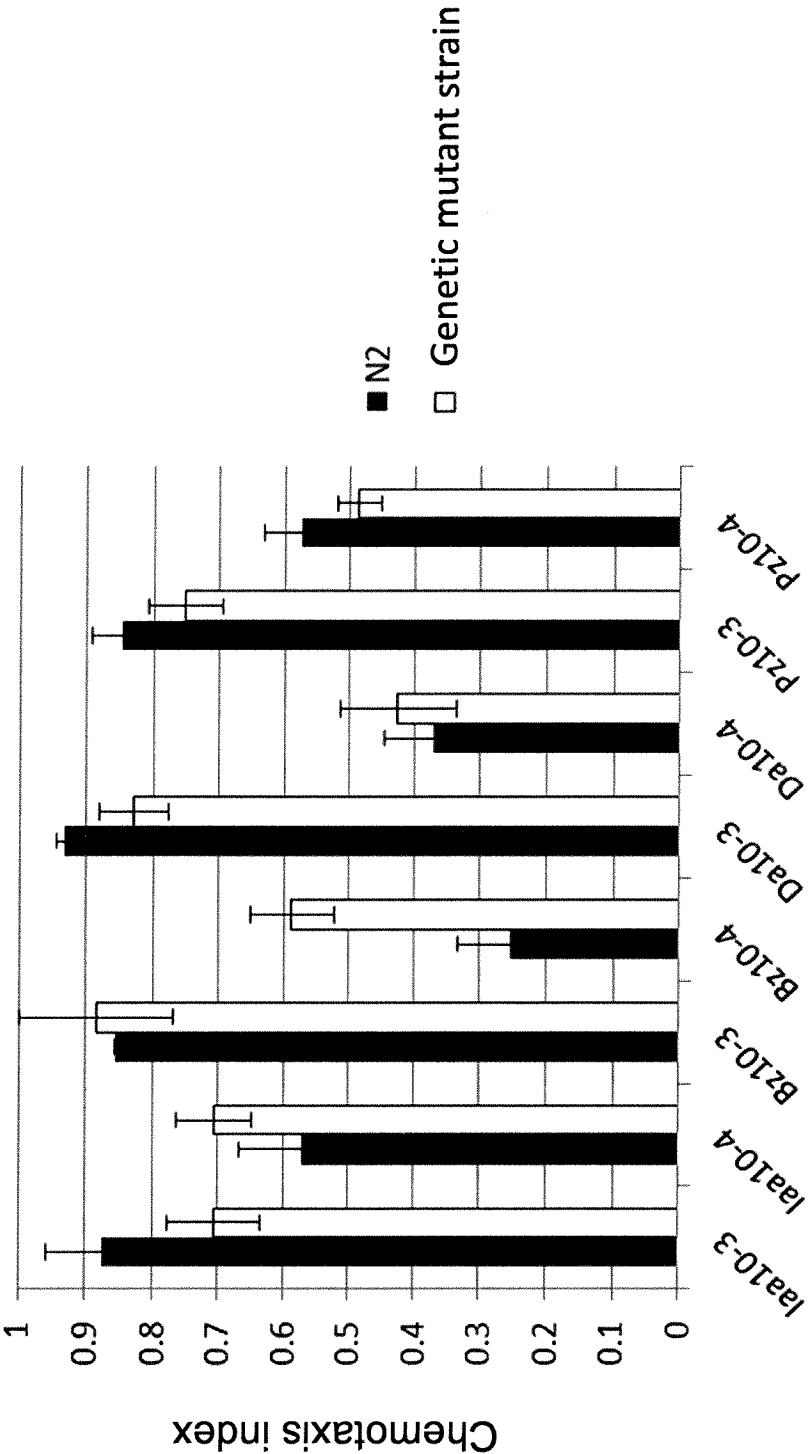


Figure 36

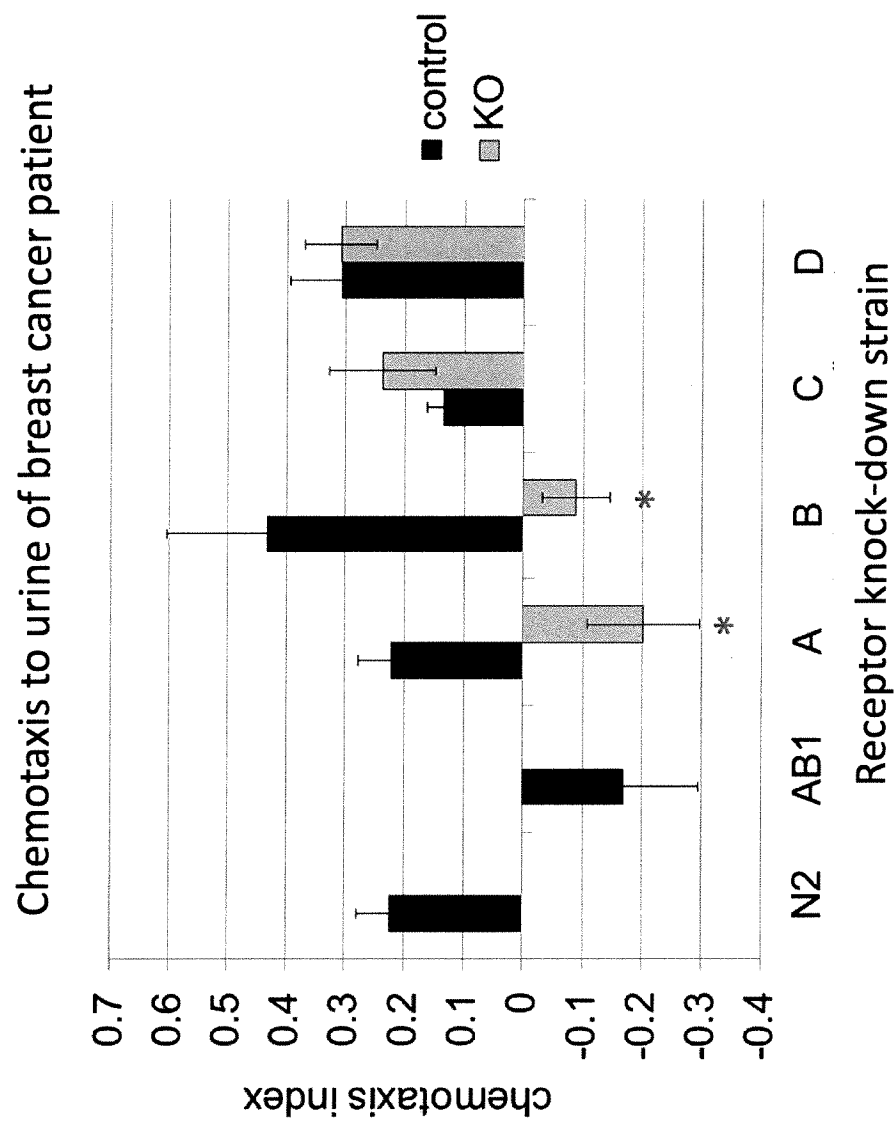


Figure 37

Method of examining type of cancer

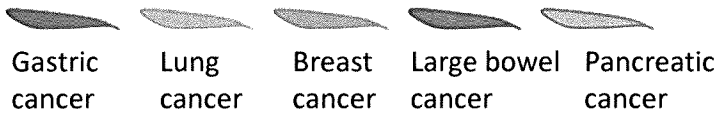
As a result of the studies regarding cancer detection dogs, it is suggested that an odorant and/or a receptor would be different depending on the type of cancer.



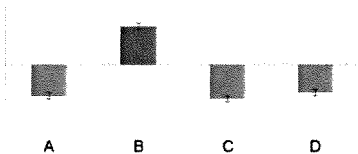
Identification of a receptor for each type of cancer, using nematodes



Production of a nematode strain which deletes the receptor (CRISPR/Cas9 genome editing technique)



i) The presence or absence of all cancers is examined using wild-type nematodes.



ii) Analysis is carried out using nematode strains deleting the receptor for each cancer species.

