Figure 1

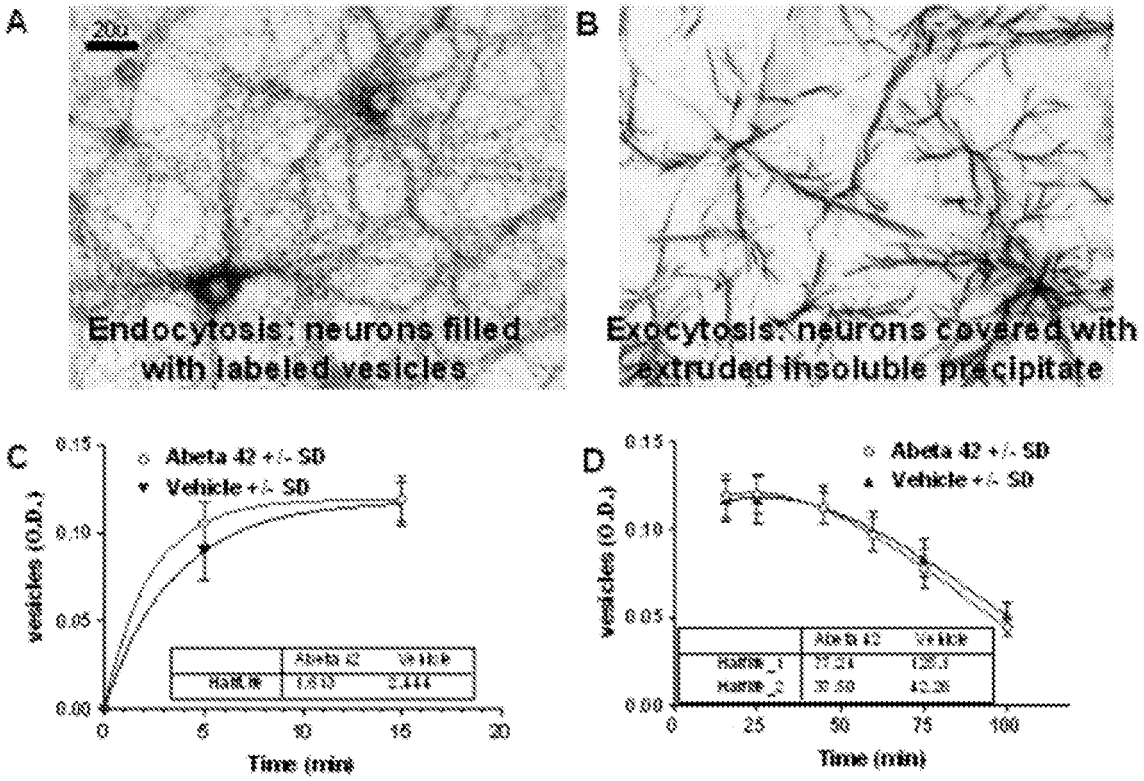

A
200
Endocytosis: neurons filled with labeled vesicles
B
Exocytosis: neurons covered with extruded insoluble precipitate
C
Abeta 42 +/- SD
Vehicle +/- SD
vesicles (O.D.)
Time (min)
D
Abeta 42 +/- SD
Vehicle +/- SD
vesicles (O.D.)
Time (min)

Figure 2

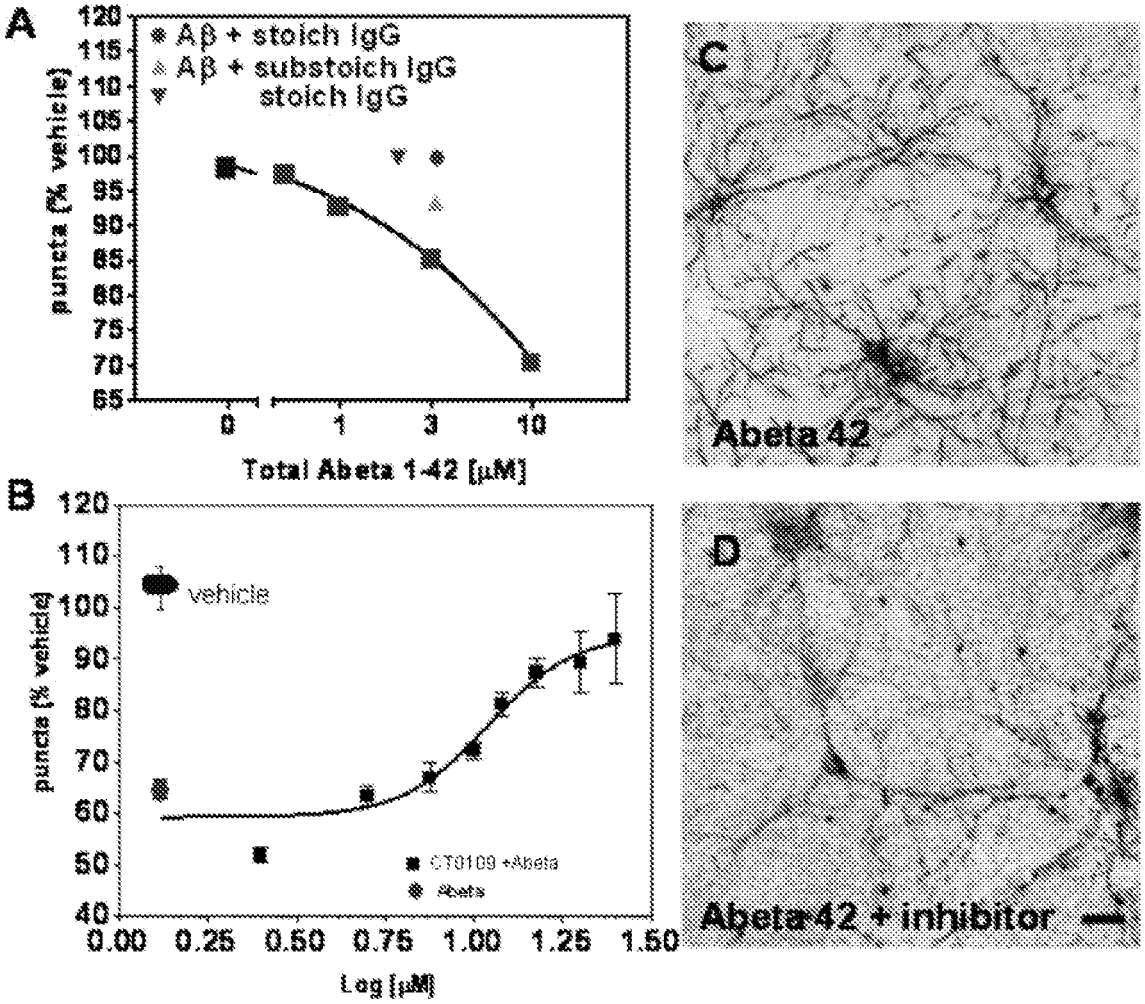
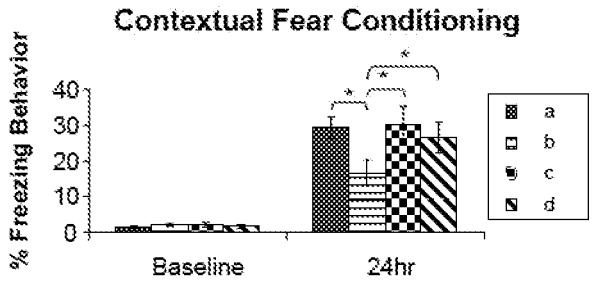

A
Aβ + stoich IgG
Aβ + substoich IgG
stoich IgG
puncta (% vehicle)
120
115
110
105
100
95
90
85
80
75
70
65
0
1
3
10
Total Abeta 1-42 [μM]
B
vehicle
puncta (% vehicle)
120
110
100
90
80
70
60
50
40
CT0109 +Abeta
Abeta
0.00
0.25
0.50
0.75
1.00
1.25
1.50
Log [μM]
C
Abeta 42
D
Abeta 42 + inhibitor

Figure 3



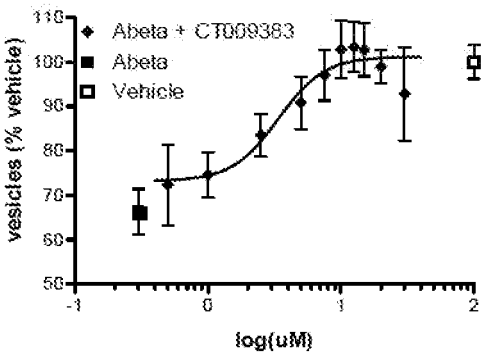
a. Vehicle (N=18)

b. Abeta (N=16)

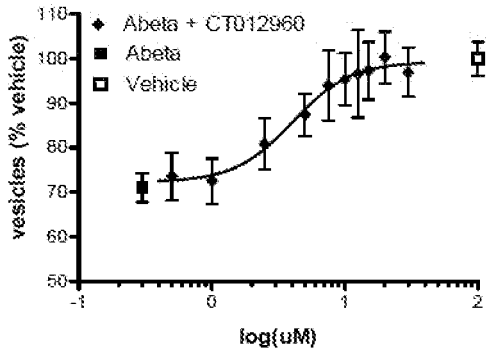
c. CT0109 (2 pmol) + Abeta (N=11)

d. CT0093 (2 pmol) + Abeta (N=10)

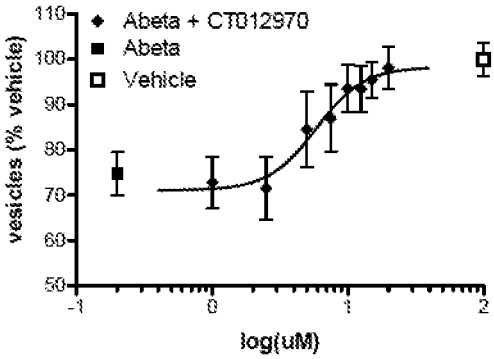
Figure 4



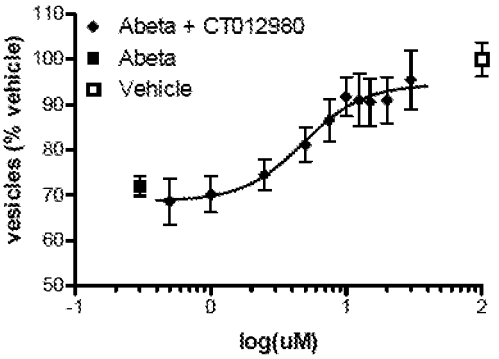
	CT009383	Abeta + CT009383
BOTTOM	102.6	73.23
TOP	125.7	101.2
LOGEC50	0.5349	0.5298
HILLSLOPE	1.812	2.518
EC50	3.427	3.387



	CT012960	Abeta + CT012960
BOTTOM	96.11	72.25
TOP	119.3	99.32
LOGEC50	0.5174	0.6070
HILLSLOPE	2.210	1.992
EC50	3.292	4.045



	CT012970	Abeta + CT012970
BOTTOM	99.69	71.09
TOP	123.0	98.32
LOGEC50	0.6019	0.7663
HILLSLOPE	2.764	2.463
EC50	3.999	5.839



	CT012980	Abeta + CT012980
BOTTOM	90.92	68.71
TOP	121.4	94.49
LOGEC50	0.5352	0.6846
HILLSLOPE	0.9717	1.949
EC50	3.429	4.837

Figure 5

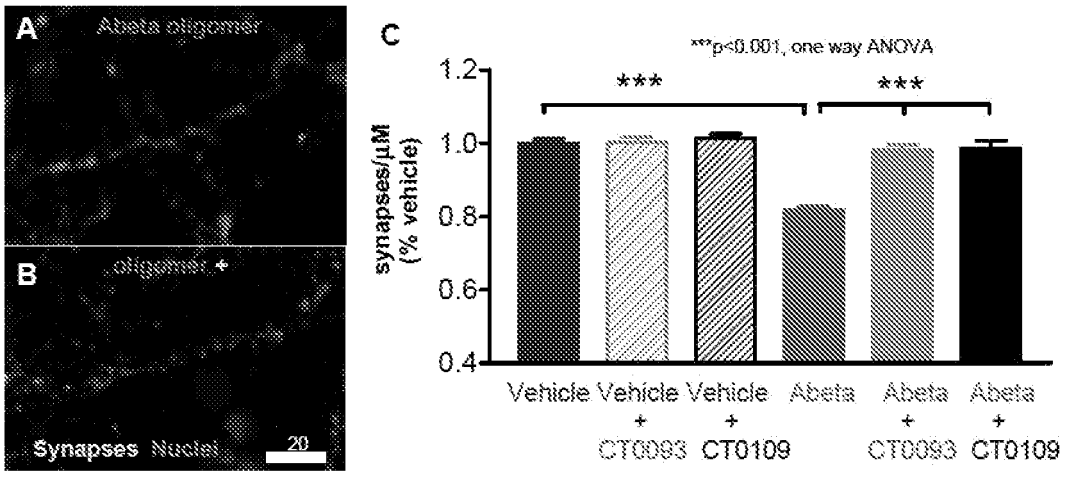

A
Abeta oligomer
B
oligomer +
Synapses Nuclei
20
C
***p<0.001, one way ANOVA
***
***
synapses/µM
(% vehicle)
1.2
1.0
0.8
0.6
0.4
Vehicle
Vehicle + CT0093
Vehicle + CT0109
Abeta
Abeta + CT0093
Abeta + CT0109

Figure 6

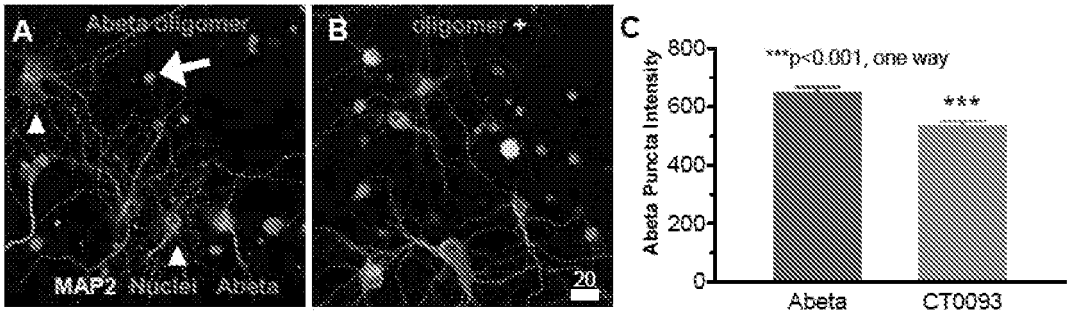
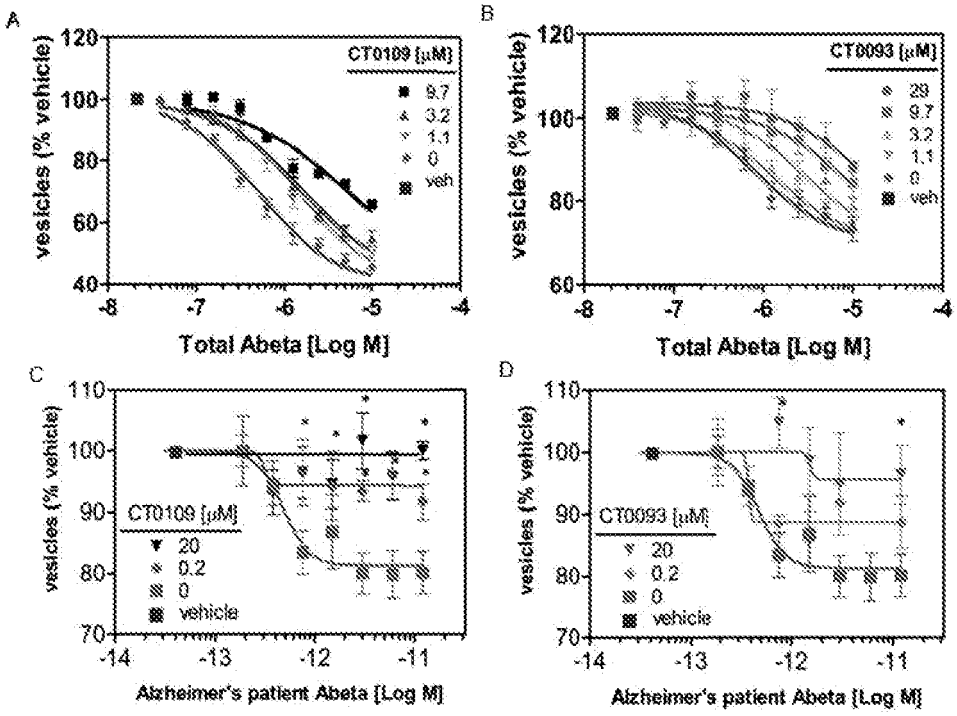

A
Abeta oligomer
MAP2 Nuclei Abeta
B
oligomer +
20
C
***p<0.001, one way
***
Abeta Puncta Intensity
800
600
400
200
0
Abeta
CT0093

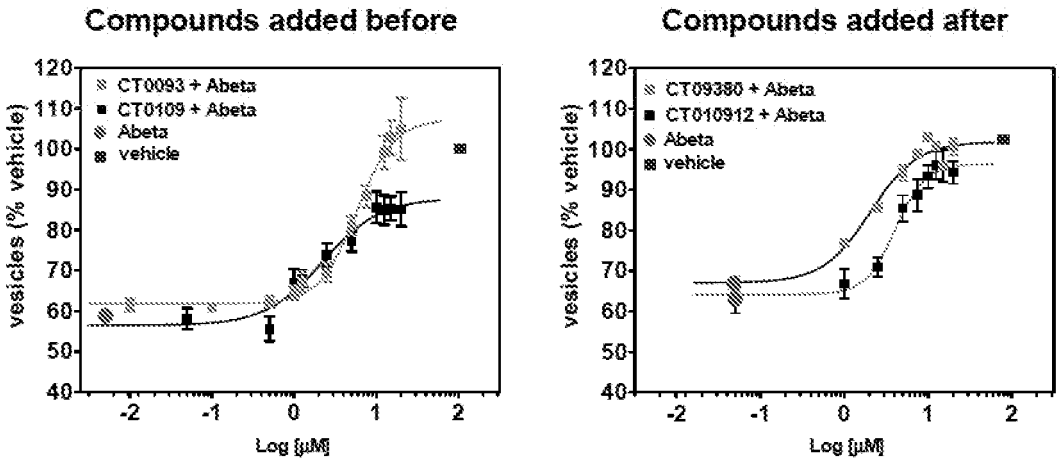
Figure 7



* P<0.05 vs. control (ANOVA)

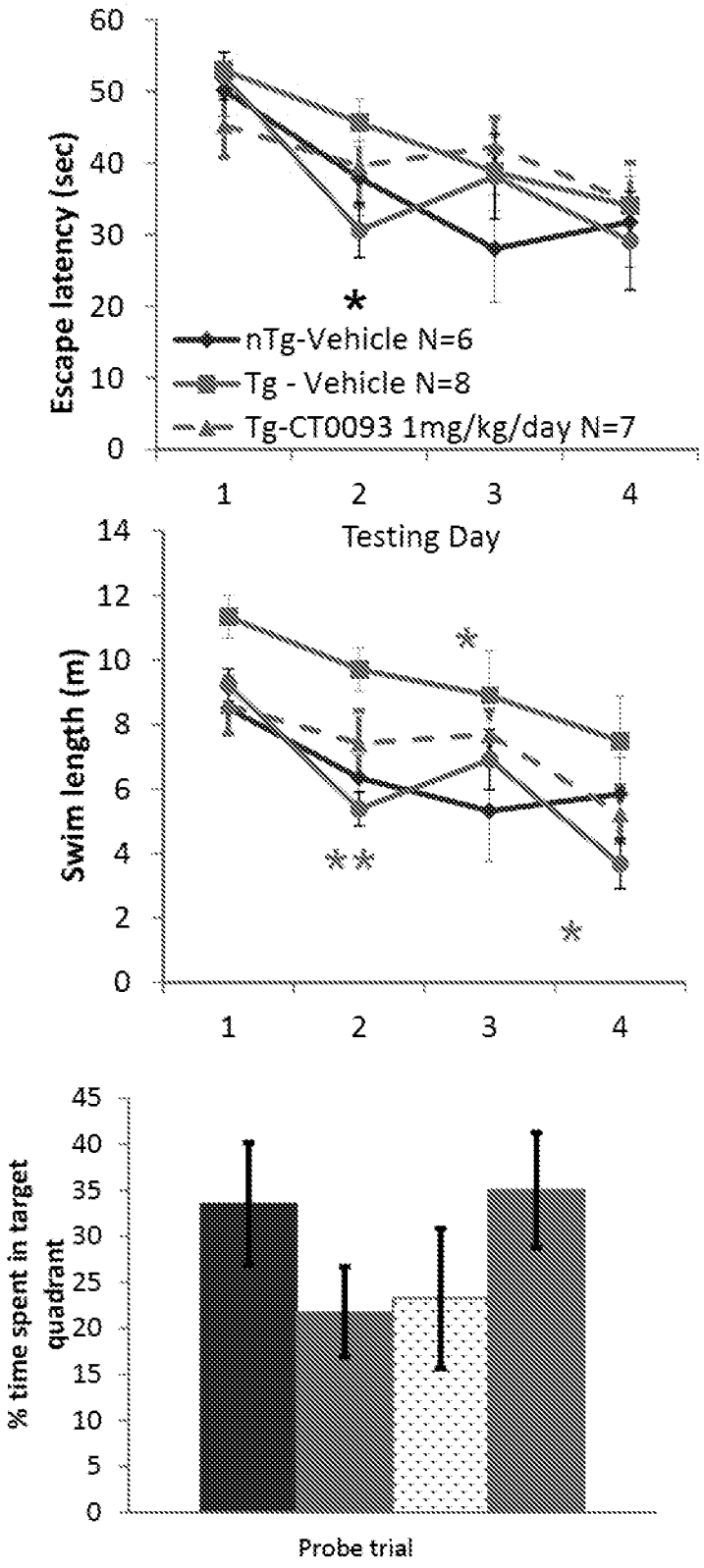
Abeta oligomer EC_{50} 0.82uM » 13 uM

Figure 8



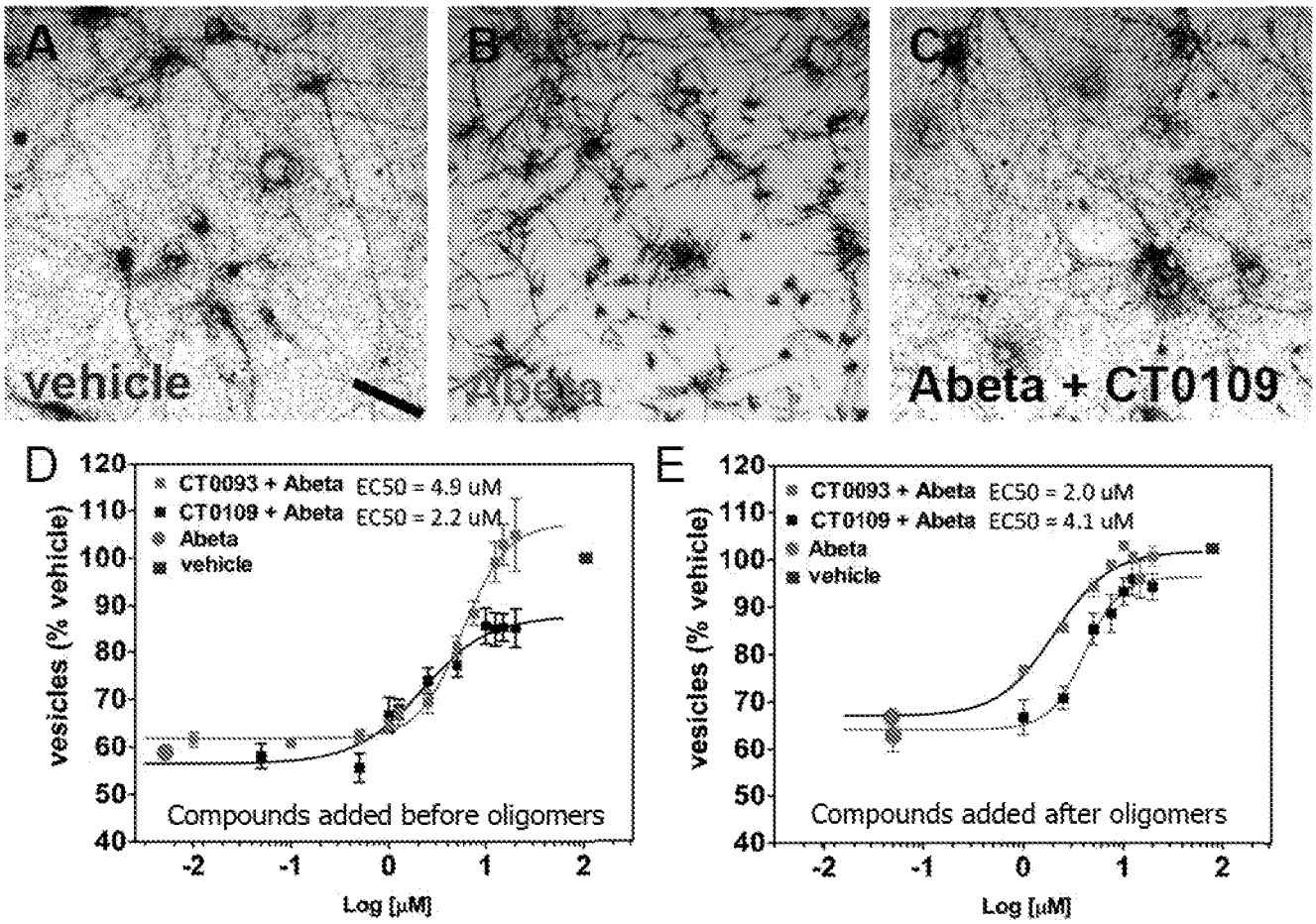
Membrane Trafficking Assay Format	Prevention EC50 (Ki) [uM]	Treatment EC50 (Ki) [uM]
CT0093	4.9 (0.58)	2.0 (0.33)
CT0109	2.2 (0.26)	4.1 (0.68)

Figure 9



*p<0.05, **p<0.01 ANOVA Bonferroni posthoc
*p<0.05, Student's t-test

Figure 10


A
vehicle
B
Abeta
C
Abeta + CT0109
D
CT0093 + Abeta EC50 = 4.9 uM
CT0109 + Abeta EC50 = 2.2 uM
Abeta
vehicle
vesicles (% vehicle)
Compounds added before oligomers
Log [μM]
E
CT0093 + Abeta EC50 = 2.0 uM
CT0109 + Abeta EC50 = 4.1 uM
Abeta
vehicle
vesicles (% vehicle)
Compounds added after oligomers
Log [μM]