7. The blood brain barrier shuttle of claims 1 to 6, wherein the brain effector entity is selected from the group consisting of proteins, polypeptides and peptides.

8. The blood brain barrier shuttle of claims 1 to 7, wherein the brain effector entity comprises a full length antibody directed to a brain target, preferably a full length IgG.

9. The blood brain barrier shuttle of claim 8, wherein the effector entity is a full length antibody directed to Aβ.

10. The blood brain barrier shuttle of claim 8, wherein the effector entity is a full length antibody directed to phosphorylated Tau.

11. The blood brain barrier shuttle of claim 8, wherein the effector entity is a full length antibody directed to alpha synuclein.

12. A pharmaceutical formulation comprising the blood brain barrier shuttle of claims 1 to 12 and a pharmaceutical carrier.

13. The blood brain barrier shuttle of claims 1 to 11 for use as medicament.

14. Use of the blood brain barrier shuttle of claims 1 to 11 in the manufacture of a medicament.

15. The use of claim 14, wherein the medicament is for the treatment of a neurodegenerative disorder, preferably Alzheimer's disease.

16. The blood brain barrier shuttle of claims 1 to 11 to transport the brain effector entity across the blood brain barrier.

~~17. The invention as described herein before.~~